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NEW COMPUTER EXPRESS

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1988

The definitive guide to the year in computing

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- *The significant trends* (and the utter oddities)
- *The big winners* (and the even bigger losers)
- *See page 25* (and 26,27,29,31, 32.....)

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OUTRAGE OVER COMPUTER VIOLENCE CLAIM

"Electronic games make kids aggressive" – psychiatrist

A major row is brewing over a report claiming that computer games can make youngsters violent. The report has been swiftly contested by video console giant Nintendo.

The International Coalition Against Violent Entertainment has completed a survey in America which claims that youngsters who play computer games based on warlike or combat themes become more prone to playground bullying. The body is lobbying for violent computer games to display warning stickers similar to those on records which include foul language or Satanic references.

The Nintendo console is singled out due to its enormous popularity with American children. The machine is currently outselling all other toys in the US. Nintendo has described the findings as "sensationalist charges".

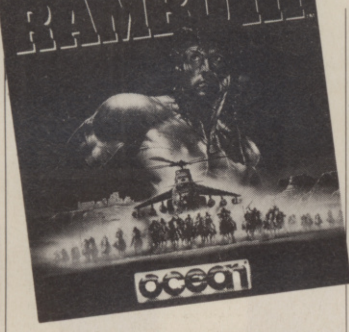
However, American psychiatrist and research leader for the Coalition, Dr Thomas Radecki told *Express*: "Those children who spend a lot of time playing video games showed an increase in hair pulling and other aggressive behaviour. It's a small effect and I'm not saying that Nintendo are producing psychopaths but with all those kids being that little bit more angry it becomes a matter of public concern."

Radecki appeared on NBC News last week warning about the alleged dangers of violent games. He says that this issue will be addressed by the American public over the next year with Congress being lobbied to pass a law on the warning stickers and if necessary to ban the most violent titles.

Any vociferous public outcry against computer games would receive widespread media attention. Radecki says that he works closely with the National Listeners and Viewers Association in Britain which is headed up by veteran morals campaigner Mary Whitehouse. Any calls for warning stickers here would depend on Radecki's success in the US. In American households video games consoles are accepted as being central to family entertainment.

Speaking from his office in Champaign, Illinois Radecki explained: "We want the Government to look at this report and we suggest that they recommend warning stickers on games explaining just what they are. It's the responsibility of elected officials here and in England to stop defective products from reaching children.

"I've been surprised at some of the *Rambo* type games which simply involve killing Russian or Vietnamese people. I really feel that in a society with aims such as peace this is a matter for concern."



• Can playing this make you more violent?

Nintendo says it has "listened carefully" to all research on computer violence. However, the firm has hit back with findings from a number of psychiatrists and doctors claiming that far from being harmful computer games are useful.

"All video games, and much of life in general, revolve around opposing forces," offered vice president Peter Main. "We believe that it is these challenges which lead to an achievement orientation. It results in the player feeling like he is a hero and therefore contributes to his self esteem. That is a constructive and admirable achievement for any young person."

Nintendo and many of its panel of doctors also maintains that computer games improve hand/eye co-ordination, encourage socialisation through a gaining of confidence and improve "inductive reasoning skills".

Nintendo has also disputed the claim that computer games impair childrens' academic performance. Radecki says that if kids are spending time playing computer games, added to the time that they watch television, their school work must be suffering. Nintendo argues that many games have educational qualities which aren't found in school curiculums.

"There is nothing mindless about mastering a video game. The games demand skills that are complex and differentiated," suggested one of Nintendo's commentators.

UPSTARTS? NO WAY

Far from being the child of the electronics age we all presumed it to be, console king Nintendo turns out to be an old timer with some ninety nine years behind it.

Next year the firm 'celebrates' its centenary. However, according to one Nintendo source parties could be thin on the ground. Ailing Emperor Hirohito's health has meant that "celebrations aren't really in vogue" at the moment.

The Nintendo games machine is consistently in the top five of American toys. In the last Century the firm was a simple vendor of Japanese playing cards, and graduated to board games after World War Two.

SOFTCARE: £15,000 for needy kids

Next year's games industry charity for the National Autistic Society was kicked into life at last week's annual industry get together with more than £15,000 raised on the night.

Launching the charity, *Express* publisher Greg Ingham also announced a forthcoming charity compilation and a "day of action" in order to raise money for the handicapped youngsters.

As first revealed in this magazine the compilation should be ready by Easter. The 8-bit versions, priced at £10, will contain ten games. And a 16-bit version will be priced at just under £20 with five games included. As yet it is not clear whether the compilation will appear for PCs but ST and Amiga versions are definite.

Software houses are being asked to submit their best games possible for the effort with Activision, EA, Virgin/Mastertronic and Firebird already willing to contribute titles to the compilation.

May 4th has been earmarked as a possibility for the 'day of action'. As many people involved in games software as possible are being asked to organize their own charity functions of whatever nature in order to raise funds.

On the night itself companies pledged £15,000 in all with the likes of Ocean, Commodore, Softek, Audiogenic and Future Publishing each giving £1,000 or more.

"We're determined to get the best games possible for this compilation," said Ingham. "The whole point is to produce a terrific compilation which people will be clamouring to buy regardless of the charity element."

A highlight of the evening came when Domark's Mark Strachan auctioned his kilt for £500 – and then proved just how little he was wearing underneath!

Charity raising has in the past been a controversial matter. However the current enthusiasm of software houses, backed by distributors offering reduced margins, and free ads from magazines, bodes well for autistic kids.

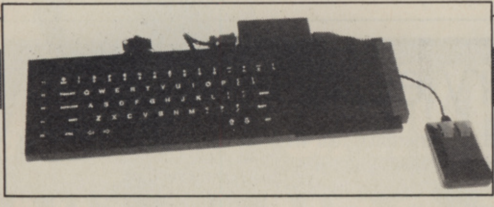
• Ingham: Compilation, day of action and £15,000 to boot

SOFTCARE: Dealer with a mission

The season of goodwill goes on with one PC dealer planning to raise £10,000 over the next year in order to combat leprosy in the third world.

Harborough based Arkel Computer Services has already donated computers to the Leprosy Mission which organises the worldwide fight against this disese. The firm decided to get involved after the Mission approached them to buy computer equipment.

"We're a Christian based company and we wanted to do something about the horrifying effects of this in Asia and Africa," explained boss Peter Arnold. Arkel will be making direct contributions to the cause as well as notifying customers about the charity.



• QL: Cloned in Germany, here in March

Germans clone QL!

A German company is currently working on a QL compatible micro which it hopes to be selling here in the New Year.

ABC Electronics in Bielefeld, near Hanover plans to launch the machine next March. A deal to sell the computer - called Enigma - into the UK is being sought. If that is found Enigma should settle on the surprising price point of £599.

The QL itself failed to make much impact and it is difficult to understand why any company should wish to produce a clone. QLs have not been made for nearly three years, though models can still be picked up cheaply.

Apparently though many German corporations make use of QLs and are looking for a direct upgrade. According to ABC the Enigma is far superior to Sinclair's original QL and pitches are being made to Siemens and Volkswagon.

Enigma will include an AT style keyboard with 3.5 inch keyboard, 1 Megabyte of RAM and a mouse. It runs a 68008 SN chip. "The operating system will be much easier to handle on this than on the QL," commented boss Andreas Budde. "In Germany the big companies will buy this machine and then I will sell it to the home market."

Budde says that he will have sold 2,000 Enigmas by the end of next year but then he hopes to ramp up production to "great quantities". Three people have been working on Enigma since the spring with an investment of around £15,000. ABC is mainly involved in manufacturing keyboards.

Games of the year - official

Ocean scooped two of the top three prizes at the prestigious trade awards held in London last week.

The glittering ceremony was attended by the industry's elite and not so elite, and was unanimously deemed the strongest of its kind.

Ocean won the coveted 'software house of the year' and '8-bit game of the year', while Telecomsoft and Mirrorsoft did well on the 16-bit awards. Electronic Arts managed to be nominated the most times yet won nothing.

Surprisingly big-spending software houses US Gold and Gremlin failed to win a thing. Zeppelin's first year was rewarded with a prize at the budget end.

Express's monthly sister magazine *ACE (Advanced Computer Entertainment)* picked up magazine of the year after just one year in existence.

Video screens were erected for the first time in order to show off the winning games and to brighten up the awards ceremony.

In times gone by the annual 'InDin' has been accused of being unprofessional when compared to the splendid bashes of older entertainment industries. But 1988's awards were smoother and (thankfully) shorter than ever before.

Rising comedy duo Hale and Pace delighted the industry's top brass before handing out the trophies.

• R-Type of guy: Mediagenic's Rod Cousens (centre) picks up his award from Hale and Pace

● The awards in full

Game of the year: (8-bit): Operation Wolf (Ocean).
Game of the Year (16-bit): Virus (Telecomsoft).
Software house of the year: Ocean.
Budget game of the year (8-bit): Draconus (Zeppelin).
Budget game of the year (16-bit): Sidewinder (Mastertronic).
Best Adventure (8-bit): Ultima V (Origin).
Best Adventure (16-bit): Dungeon Master (Mirrorsoft).
Best Simulation (8-bit): Matchday II (Ocean).
Best Simulation (16-bit): Falcon (Mirrorsoft).
Best Translation of a licence (8-bit): R-Type (Activision)
Best Translation of a licence (16-bit): Pacmania (Grandslam)
Utility of the year (8-bit): Locomotive Software's CP/M (Spectrum).
Utility of the year (16-bit): Micro Illusions's Photon paint.
Best Programmer (8-bit): Incentive's Freescape team.
Best Programmer (16-bit): The Bitmap brothers.
Best Sound (8-bit): Where Time Stood Still (Ocean).
Best Sound (16-bit): Xenon (Mastertronic).
Best Graphics (8-bit): Savage (Firebird).
Best Graphics (16-bit): Starglider II (Rainbird).
Best magazine: ACE
CTW Best Dealer: Software Plus.
Journalist of the year: Gary Penn (The One).
Best promo video: Platoon (Ocean)
Overseas Award: Captain Blood (Infogrammes).

A special award was given to the Federation Against Software Theft's campaigner Bob Hay for efforts against piracy.

At last! Workbench 1.3 arrives

After a considerable helping of press speculation and vague release dates Commodore's new Amiga operating system Workbench 1.3 has finally arrived in the UK.

The three disk update will cost £14.95 which includes a manual. "It makes the Amiga a faster, leaner and even more flexible machine," says Commodore. Printing to screen speeds are claimed to be four times faster than before. Hard disk directories and graphic printing is estimated to be an astonishing ten times faster. The library automatically implements a 68881 Math Coprocessor chip with 68020 and there are now 21 printer options.

A1000 owners will pleased to hear that Kickstart 1.3 on disk has been bundled with the Workbench upgrade. A500 and A2000 users (who have Kickstart on ROM instead of disk) will have to pay another £14.95 for a replacement chip. New Amigas will now include the update as standard.

● Looking for a late Chrimbo pressie for a computer owning friend? Byteback reckons it's got the answer in the form of a £7 ball of fur.

Well, it's a mouse shaped mouse cover really, sporting such features as "cute" pink ears and little black eyes. According to Byteback the dear thing can keep your ST or Amiga mouse cosy and doesn't interfere with such trivia as actually pressing the mouse button. More info (if you must) on 0636 79097.

GAMES TOP TWENTY — FULL PRICE

1	1	Operation Wolf	*Spec, C64, CPC, ST, Amiga*	OCEAN
2	NE	Robocop	*Spectrum, C64, CPC*	OCEAN
3	2	Afterburner	*Spectrum, C64, CPC, ST*	ACTIVISION
4	3	Double Dragon	*Spectrum, C64, ST, Amiga*	MELBOURNE HOUSE
5	8	Thunder Blade	*Spectrum, C64, CPC, ST, Amiga*	US GOLD
6	6	Giants	*Spec, C64, CPC*	US GOLD
7	24	Batman	*Spectrum, C64, CPC, ST, Amiga*	OCEAN
8	11	R-Type	*Spectrum, CPC, ST*	ELECTRIC DREAMS
9	9	Football Manager 2	*Spectrum, C64, CPC ST, Amiga, PC,*	ADDICTIVE
10	NE	Falcon	*C64, ST*	MIRRORSOFT
11	4	Last Ninja 2	*Spectrum, C64, CPC*	SYSTEM 3
12	5	Pacmania	*Spec, C64, CPC, ST, Amiga*	GRAND SLAM
13	RE	Elite	*Spec, C64, CPC, ST, Amiga, PC, BBC, Elec, MSX*	FIREBIRD
14	7	Return Of The Jedi	*Spectrum, C64, CPC, ST, Amiga*	DOMARK
15	16	Game Set and Match 2	*Spectrum, C64, CPC*	OCEAN
16	12	Microprose Soccer	*C64*	MICROPROSE
17	15	Taito Coin-ops	*Spectrum, C64, CPC*	OCEAN
18	14	Supreme Challenge	*Spectrum, C64, CPC*	BEAU JOLLY
19	15	Daley Thompson's Olymp. Chall.	*Spectrum, C64, CPC, ST, Amiga*	OCEAN
20	10	Out Run	*Spectrum, C64, CPC, ST, Amiga*	SEGA/US GOLD

GAMES TOP TEN — BUDGET

1	3	Joe Blade 2	*Spectrum, C64, CPC, ST, BBC, C16, Electron*	PLAYERS
2	2	Commando	*Spectrum, C64, CPC, BBC, C16, Electron*	ENCORE
3	1	Bomb Jack	*Spectrum, C64, CPC, ST, Amiga, C16*	ENCORE
4	10	International Rugby Simulator	*Spectrum, C64*	CODE MASTERS
5	7	Footballer Of The Year	*Spec, C64, CPC, Elec, BBC, Atari 8-bit, C16, MSX*	KIXX
6	9	Knightmare	*Spectrum, C64, CPC, ST, MSX*	MASTERTRONIC
7	RE	Yogi Bear	*Spectrum, C64, CPC*	ALTERNATIVE
8	19	Gauntlet	*Spectrum, C64, CPC, ST, Atari 8-bit, MSX*	KIXX
9	12	Ghostbusters	*Spectrum, C64, CPC, Atari 8-bit, MSX*	MASTERTRONIC
10	24	Formula Grand Prix	*Spectrum, CPC*	ALTERNATIVE

COMPILED BY GALLUP

NE – new entry
RE – re-entry

COMPUTING better than COMMUTING!

The cost of housing in England's South East could lead to an increase in "teleworking" – working from home by computer.

Legions of employers in the prosperous South East are having difficulties attracting talent from the north to move into such an expensive area. But those employees are more than happy, where possible to submit work through their micros.

Nearly a quarter of British workers are interested in working from their home computers rather than in an office. And a third of key "decision makers" agree.

According to the Industrial Relations Review and Report published last week employers who offer this will be able to pick up the most talented personnel in Britain. Competition for trained staff is hotting up now that demographic charts are showing a thinning out of school leavers. To employ home-based parents, the disabled and those simply not willing to travel would alleviate the problem.

PacMania first for Archimedes

Archimedes owners are to get their first taste of coin-op action in the form of Pac Mania.

Grandslam has already stated an intent to support Acorn's 32-bit micro but this is the first coin-op ever to appear on the machine. *Pac Mania* costs £19.95.

ARCHIMEDES 1 MEG MINIMUM
PAC-MANIA
GRANDSLAM

• Pac Mania: Archie boost

PCW coders' joy

Those Amstrad PCW owners wanting to get past LocoScript into machine code programming should check out a new book from Spa Associates (Tel: 0937 843855).

PCW Machine Code costs a weighty £15 and includes chapters on controlling screen, printer, disc drive and memory.

Dungeon Master fury eases

• Watson: Problem? What problem?

Mirrorsoft came to a remarkable agreement last week with games importer Gainstar over the Amiga version of *Dungeon Master* – just hours after alleging "major loss of business".

The row arose after Gainstar jumped the gun by selling *DM* ahead of Mirrorsoft's official UK launch. The game was developed in the States by Mirrorsoft-licensed FTL.

Mirrorsoft was furious that Gainstar should be selling the game before its own launch. The firm pointed out that it had exclusive rights to the game and that it had spent "many man hours and resources" on the game. Gainstar's action is known as 'grey importing' which, whilst being perfectly legal, annoys those companies which have paid for official rights.

However, all was sweetness and light within hours, after it emerged that "an agreement had been reached". Gainstar is no longer importing the game direct from America. Instead it is buying direct from Mirrorsoft.

Mirrorsoft's Tom Watson had pointed out that Gainstar could not offer the same level of support as it could. And that if imported games were faulty it was more difficult to replace them.

"They have agreed to buy from us instead. We had some hard words and explained our position and they agreed with us," said Watson. He went on to say that the problem had "been sorted out without any shennanigans".

Despite the bonhomie generated by the two firms there was still doubt over pricing. Gainstar had been selling the game at £34.95 – £10 more than Mirrorsoft's recommended price, and it was unclear whether this price would now be dropped.

However, the program should be widely available from Amiga software suppliers this weekend at £24.95.

IT'S HERE! THE FIRST AMIGA GAMES BUNDLE

Commodore's Amiga is to be bundled with games software for the first time.

The package is being put together by one of Commodore's distributors SDL and will run in "thousands of shops in the UK". It constitutes ten free games worth £230 each of which is on its own disk.

The Tenstar pack includes such games as *Barbarian, Terrorpods, Wizball, Buggy Boy* and *Art of Chess. Photon Paint* is also included in the package. Commodore itself was expected to follow Atari's move with the ST Superpack but the firm apparently approves of SDL's move anyway. If this proves to be as successful as Atari's bundle then Commodore may well introduce a special pack of its own sometime in the future.

"Now people can get a brilliant deal when they're buying an Amiga. All they have to do is walk into a shop and ask if they stock the Tenstar pack," said SDL's John Arundel.

Amiga buyers might be disappointed to learn that SDL has introduced this to combat the threat of dealers cutting Amiga prices by up to £50 in order to be more competitive. However, the firm is confident that buyers will prefer the £230 worth of games to a £50 price cut.

• Amiga: Games bundle deal

The popularity of Atari's games bundle – which is £100 more expensive than the basic machine – lends credibility to this theory.

What a corker! Amiga nears million mark

While most of us are stocking up on the booze for a Christmas knees up Commodore is buying up bottles of Champers for a 1989 special party.

The company reckons that corks will be popping early next year when the millionth Amiga is sold somewhere in the world. "We're not sure when it'll be," said a spokesman. "But I should think we're about 70,000 short of the milestone figure."

He went on to admit that it was really "just an excuse for a big party".

In the UK probably fewer than 100,000 Amigas have been sold, but elsewhere in the world it has outsold the Atari ST.

Gotcha! Superfast virus detector arrives

Company bosses in a state of near panic because of the computer virus threat can sleep easier thanks to a new virus detector.

Usually, if a virus rears its ugly head thousands of disks have to be checked individually until the culprit has been found. But S&S Enterprises has come up with a machine which checks 700 disks per minute. The machine can detect all known viruses and can be updated as new ones emerge.

S&S offers its services to firms experiencing epidemics. It says that there were so many infected sites that it had to develop a fast method of checking disks. The machine is mounted on a trolley so that it can be transported around offices easily.

ATARI GAMES TAKES NINTENDO TO COURT

• Nintendo: Unfair monopoly?

A miffed Atari Games has launched a legal attack on Japanese console company Nintendo claiming that the latter has unfairly monopolised the American cartridge market.

Nintendo's console is by far the most popular games machines in the US and the company keeps a tight control of games published for it. The firm manufactures all cartridges and licenses other companies to design some of the games (Atari Games being one of them).

However, Nintendo gamers have become increasingly frustrated lately by severe shortages of the cartridges. Nintendo has been affected by a drought of the memory chips needed for the games. As a result games producers such as Atari have helplessly seen sales of their products drop off.

Atari is seeking a staggering $100 million in damages from Nintendo. It is saying that Nintendo has monopolised the video games market with a games machine which is incompatible with anything but the cartridges manufactured by Nintendo itself.

"Using this barrier and its completely dominating position in the market Nintendo has forced us to have all our cartridges manufactured at prices it dictates," said Atari.

Nintendo has not commented.

Atari has rushed out its own versions of games for the console in order to take advantage of Nintendo's drought. Atari Games is a wholly different company from Atari Corp (of ST fame). It was formed when the original Atari was broken up after the dramatic drop off in console sales in the mid '80s.

UK games software houses trying to gear up for a possible console boom next year have spoken of similar frustrations. While they are able to produce computer games on disk without consulting or paying royalties to the relevant hardware manufacturers, this is impossible with console software.

This is one reason why news of the Konix console has been enthusiastically received. It will accept widely-available 3" disks, and will therefore be much easier for software houses to produce titles on.

The Main Event no longer

Prominent software mail order company The Main Event appears to have disappeared.

It is understood that the Hanley, Stoke based firm's shop was raided by the Police and Trading Standards officers who found nothing except for a telephone. Local shops and neighbours are utterly bemused and have no knowledge of the company's whereabouts.

As yet the firm's financial situation is not known. However, advertising bills have not been paid to some of those magazines through which The Main Event conducted its business. Software buyers experiencing difficulties should contact the *Express* newsdesk (0225 446034).

Armenian earthquake stalls British Micro expansion

Computer tablet manufacturer British Micro is planning to set up a factory in trouble torn Armenia. But delays are probable as a result of the tragic earthquake.

The Watford-based firm's chairman Manas Heyhoyan is of Armenian descent and contacts with that country enabled him to set up a deal with the Soviet Government. A factory has already been secured in the capital Yeravan.

"The building allocated to us is still standing," said general manager Syd Lauholt. "But it's difficult to make contact because of the tragedy. As far as we can tell that area is OK."

British Micro is determined that the earthquake won't cause any substantial delays. However, the immediate situation has meant that little progress can be made. "They have more pressing matters on their hands at the moment," commented Lauholt.

"There is a great demand for all computer products in China and Russia but it can be difficult for Western companies to set up there. It is illegal to export some technology to the East although ours doesn't fall into that category," he said.

British Micro manufactures low cost touch tablets and related software for the PC. Its main product is the PowerCad design system costing £700.

"In the long term we want to start manufacturing computers for the Soviet market," added Lauholt. "That though is some way off." The Yeravan plant should be up and running by the middle of next year.

PCW spell-checker promised

Amstrad PCW owners who use Database's Mini Office Professional *are to be offered an add-on spelling checker next year priced in the region of £10.*

"This is simply something people have been asking for," said Database's Andrew Wood. "We try to listen to what our users want."

Mini Office Professional *is an integrated suite of business packages priced at £30, including word-processor, database and spreadsheet. An extra thesaurus is also being pondered although no decision has yet been made.*

There are currently no plans to include spell checkers on versions of the program for other machines.

Mini Office
PROFESSIONAL
Word processor
Comms
Spreadsheet

• Mini Office: checker add-on

● Pound for pound...

Telecomsoft's budget label Silverbird is to follow the likes of Codemasters by concentrating more on the £2.99 price point. However, some 20 per cent of its games will still cost the traditional £1.99.

Purrrfect file management?

Messy PC owners losing track of where valuable files have gone are being pitched with FatCat – a disk and file management utility.

The £90 pack is claimed to make "sub-sub directories just a bad memory". More info from In Touch Software on 0222 882334

NEW COMPUTER EXPRESS

OUR OPINION

Violent reaction

When the collective might of American academia decides that something is true, the kneejerk reaction is to say that it isn't. They have a reputation, you see.

But the latest gaggle of reports into computer games actually prompting violence deserves more consideration. You only have to look at what happened to the record market to realise the nature of the possible threat.

With records, what began as a low-key action group of a handful of individuals protesting at perceived Satanism, bad language and anti-social behaviour, became a powerful censorship body. Academics were duly wheeled in to lend validity.

The result was that records were pulled from stores and cover artwork was hastily changed. And if an industry as powerful as the record business can succumb...

Of course, it is just possible that there is a grain of truth to the software complaints. On the face of it, slashing warriors and blowing up aliens for hours at a time wouldn't appear to be the healthiest way to spend your life. But even that falls a long, long way short of saying that such games-playing causes anti-social behaviour in kids.

If there is a connection between violent games and violent people, then at most it's that such activities act as a channel for aggression. Let's just hope that the software industry can get its act together and fight its case plausibly and effectively.

Otherwise, before they can buy many new titles, all gamers will have to be demonstrable psychopaths.

Happy Christmas

Due to a certain little interruption called Christmas, *Express* will be taking a break next week. Apologies about that, but we'll try to make sure that it only happens once a year. We'll be bouncing back in the New Year, with our next issue on sale on Thursday January 5th.

Until then, may you have the happiest of Christmasses...

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'MIRACLE' CHIP FIRM SOLD TO EUROPEANS

Inmos, Britain's only microchip developer and source of the "miracle" Transputer chip is to be sold off to French-Italian electronics combine SGS-Thomson (ST).

Thorn EMI, which bought Inmos from the Government in 1984 for £125 million, has been trying to sell the firm for three years. It is believed that Thorn EMI will gain a ten per cent stake in the European combine rather than receive any cash for the deal.

The sale represents the end of British control of British inventiveness in the microchip area. Pessimists are also predicting that Inmos' leading creative lights will move on after the take-over. Talented members of any company often upsticks when far reaching changes are afoot.

Such is the concern over the sale that a group of Labour MPs last week tabled an emergency motion with a view to blocking it. An attempt to force a Commons debate on the subject was thwarted by the Speaker. The sale, argued the MPs, threatened "the future prosperity of the British electronics industry".

ST's main interest in Inmos is its newly developed and innovative "miracle" Transputer – "the first true computer within one chip". The takeover makes ST Europe's only company making both microprocessors and memory chips.

Inmos was set up in the mid '70s by the then Labour Government with the intention of restoring Britain back to the forefront of technological development. It currently employs 1,400 people with plants in Newport and Bristol.

SGS-Thomson manufactures home as well as business computers on the continent. Its takeover of Inmos represents Europe's first potential threat to the American and Japanese microchip giants.

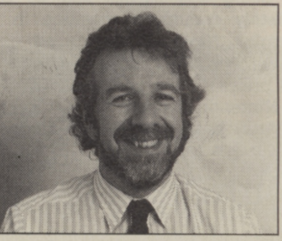
Mindscape plans UK assault

American publisher Mindscape has finally laid down concrete plans for its entry into the UK and Europe. And the firm is aiming to "be at least as big as MicroProse" here.

A European managing director has been appointed and first products are due to be shipped early in the new year. Mindscape Europe will be based in Sussex and will be headed up by Geoff Heath formerly boss of Activision (UK) and Melbourne House and a director of Virgin/Mastertronic. Employees are currently being sought.

A game version of hit fantasy movie *Willow* will spearhead the firm's assault on the European market with other titles to follow. Mindscape is also pondering the notion of employing British programmers and writing games here. "That's a definite possibility," said Heath. "But there are a lot of games to arrive here from the States before we can really think about it too seriously.

"I think we can be as big as someone like MicroProse," said Heath. "But you can't measure a company on how big it is. It matters how much profits you make."



• Heath: Mindscaped man

Flair Paint virus prompts AMS action

AMS has acted swiftly following the discovery of an unusual software virus on its ST art package *Flair Paint*.

Its coders have written a program to kill the virus and the company is offering free replacements to any of the 300 or so people who purchased copies at the recent Atari show before the problem was spotted.

The virus appears to have been designed originally as an antipiracy device – it was only triggered by certain types of software. The program, thought to have originated from public domain software, infected *Flair Paint* programmer Jeff Lawson's disks and resided there for several months without being spotted.

Flair Paint retails at £34.99. More information on 0925 413501.

Atari PCs: some cheaper, some axed

Following price cuts across its PC3 range of business machines Atari has confirmed that it has phased out the ultra low end PC1 and PC2 machines.

The PC1 and PC2 were announced only last year with availability stretching over a matter of months. Atari says that the PC3 price cuts have superceded the lower machines and that it simply isn't worth manufacturing them any more.

"We only had very small volumes and they sold well," commented an Atari spokesman. "We're now selling more and more business machines – that's mostly to do with product availability."

As predicted in *Express* (Issue 5) Atari has cut prices as a direct response to Amstrad's recent cuts. The PC3 Double Drive is down £50 to £599 whilst the PC3 Hard Disk dips by £150 to £799.

However Atari claims its machines aren't directly comparable to Amstrad's low cost offerings. "We've got more stuff in ours," said the spokesman. The recently available high end PC5s remain unchanged.

• PC1: Gone forever

Hard disk pirate busted

A computer dealer selling hard disks with free pirated software installed was fined £1,100 last week after being caught by the Federation Against Software Theft (FAST).

Taylormade Systems in Bath had been offering the likes of *Ability*, *Sidekick Plus* and *Lotus 1-2-3* as free incentives to purchasers of the hard disks. FAST received a complaint and bought one of the disks.

"We received word from the trade and moved in," explained FAST co-ordinator Bob Hay. "The trouble was that some of the copied programs didn't even work."

FAST have had a very active year, seizing pirated software with a street value of £1.25m.

Adventures brought to book

Keen adventurers and explorers are being offered clue books to help them through seven Electronic Arts games.

The booklets – costing £5 each – contain maps, mazes, tips, tactics, hints, advice and all things adventurish. EA reckons they're an essential aid for serious role players. *Deathlord*, *Wasteland*, *Mars Saga*, *Sentinel Worlds* and the *Bards Tale* trilogy are covered.

• Mars Saga: Booked

Newspaper that's state-of-the-Atari

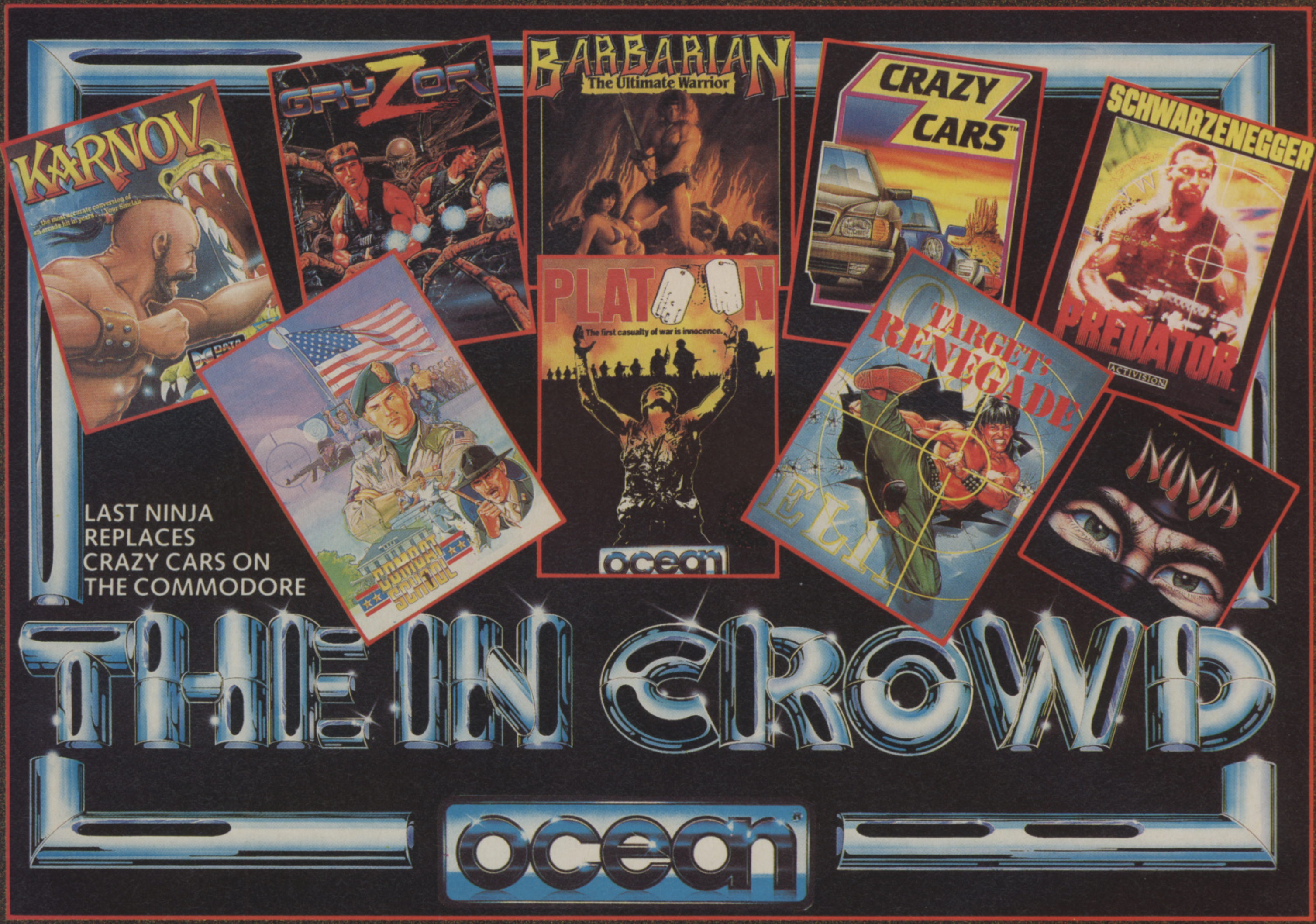
While Fleet Steet installs computer systems costing millions of pounds, one American newspaper has opted for computerisation on a slightly more modest level.

Jackson's County Gazette in Olathe, Kansas – circulation 20,000 – is kitted out with the Atari 8-bit computers. It uses seven of the machines to handle all the newspapers functions except typesetting and billing.

Journalists use Atari 800XLs as word-processors with a special hardware addon called Omni View to give an 80-column display. Another machine with customised disk drive is used as a database for old stories – apparently capable of searching every word in 1500 stories within 30 seconds. There's even an XE Games System for staff relaxation.

"If a small computer will do the job effectively and efficiently why use anything more costly?" said editor Robert MacLean. "We may purchase a computer suitable for desktop publishing, but we still won't give up our 8-bit Ataris."

CRUCIAL COMPILATION



LAST NINJA
REPLACES
CRAZY CARS ON
THE COMMODORE

GRYZOR Featuring all the game-play of the arcade original, Gryzor takes you into a thrilling alien world of force fields, fanatical guerillas and strange enemy defence systems – but you have the fire-power and maybe, with a 'little' skill, grit and split second timing, you can infiltrate the aliens' headquarters. Play Gryzor once and you'll be hooked!

© 1987 Konami

BARBARIAN THE STORY SO FAR...The evil sorcerer Drax has agreed that if a champion can be found who is able to defeat his demonic guardians, the Princess Mariana will be released. From the wastelands comes an unknown barbarian, a mighty warrior, wielding his broadsword with deadly skill. Can he vanquish the forces of Darkness? ONLY YOU CAN SAY...

© Palace Software Ltd

CRAZY CARS You are racing in the world's craziest race: "The American Cross Country Prestige Cars Race". If you are able to complete the race before the time runs out, you will get a faster car. You start with a Mercedes 560 SEC, and only the world's best drivers may drive a Ferrari GTO.
PREPARE TO START, READY? GO!!!

© Titus Software Ltd.

LAST NINJA replaces C.CARS on C64.

PREDATOR You've heard about Predator, the Schwarzenegger movie – now you can play the leading role. Take a crack commando unit into the South American jungle to rescue a bunch of trapped diplomats. Should be easy enough...and so it would be, if it weren't for the mysterious alien who keeps on taking out your men.

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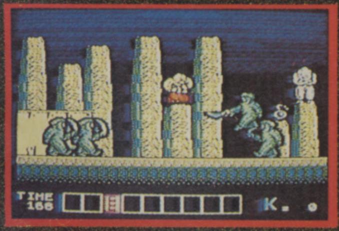

KARNOV Join Karnov, the fire-breathing Russian stongman, on his hazardous quest to defeat the evil dragon Ryu and find the Lost Treasure of Babylon. Karnov is a vast 4-way scrolling game that combines both strategy and fast action in nine challenging levels of gameplay. It is recognised by arcade addicts everywhere as one of the best games of its kind. Karnov also has something special in the way of characters – have you ever been killed by a skeleton on an Ostrich?

© Electric Dreams Software Ltd.

COMBAT SCHOOL Konami's arcade hit now for your home micro and already a No. 1 hit. Seven gruelling events featuring the Assault Course, Firing Range, Arm Wrestling and Combat with the instructor himself! Combat school throws down the challenge to the toughest of thoroughbred gamesters.

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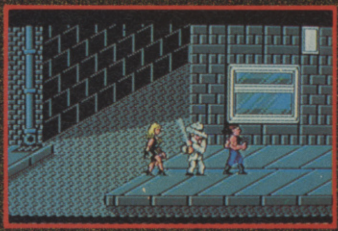

TARGET RENEGADE Every move you make, every step you take, they're watching you. Fight your way through the precinct – the back alleys, the car parks, fight your way through the villainous community, the skin-heads, the Beastie Boys, the bouncers. This is just the tip of the iceberg on you chilling quest to confront "MR. BIG".

PLATOON Lead your Platoon deep into enemy territory, you can almost feel the humidity, sense the threatening dangers as you encounter the enemy and his many booby traps. Having found the underground maze of tunnels, enter at your peril! Enemy soldiers lunge at you from the murky waters within, but this is the only way you can find vital information. If you come out of this alive, you'll be just one of the few!

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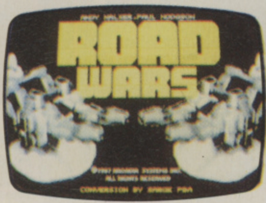
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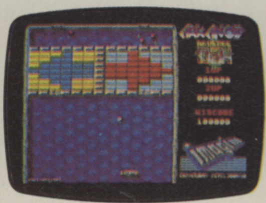
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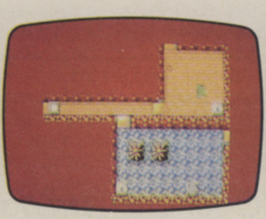
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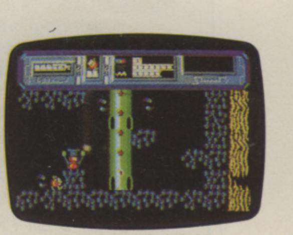
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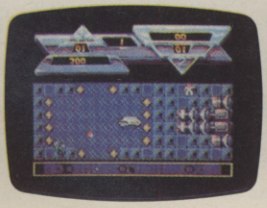
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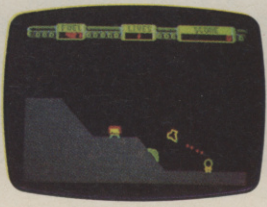
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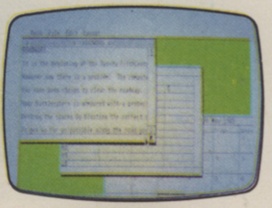
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EXPRESS
MAIL

Dear Reader

Why don't YOU make a contribution to the Britain's liveliest, most up-to-the-minute computer forum? Whether it's outrage, angst, humour, pleas for help, or closely-argued opinion, we'll read it and, most likely, print it. You might even win one of our famed mystery prizes. Write to:

Express Mail, 4 Queen Street, Bath, Avon BA1 1EJ

AMIGA GRIEF

Mystery WINNER prize

Electronic Arts and Amiga suppliers may well be subjected to much harassment following the opening of certain parcels this Christmas.

My son will receive an Amiga 500 and *Ferrari Formula One*. The machine will not run this software if it has Kickstart 1.3 on board. I have tried several copies of the software and finally gave in and rang Electronic Arts. They confirmed the problem!

However, I have also been told that machines with Kickstart 1.3 are not yet available and that my machine is faulty. The loading screen on the Amiga displays v1.3.

Can you clarify the situation?

R J Eliot, Bath, Avon

✓ Version 1.3 of Kickstart (the part of the Amiga's operating system built into the machine's ROM memory as opposed to being supplied on disk) is indeed now being included with the latest machines. So your machine isn't faulty in that sense. Sadly, you're yet another victim of the software upgrade syndrome. What happens is this: A manufacturer provides a machine with operating software and encourages third parties to write programs for it. In due course the manufacturer realises the operating software could be improved and does so. Invariably the new software then proves incompatible with some existing programs.

It's happened on Atari ST, Apple Macintosh, and PC so why not Amiga? Of course, Commodore will insist - with some justice - that all third party software that conforms to their guidelines will still be compatible with Kickstart 1.3. Indeed we have checked several titles on a Kickstart 1.3 machine and only Ferrari Formula One crashed. Menace ***from Psysgnosis,*** Elite ***from Firebird and*** Dungeon Master ***from FTL were all fine, as was all the business software we tried. (And no doubt EA will soon release a 1.3 compatible FF1).***

Your only immediate recourse is to exchange your copy of FF1 for another title such as one of those mentioned above. Most reasonable suppliers would allow this.

In the meantime we shall be sending you a copy of Dungeon Master, ***partly out of sympathy for your plight, partly because we like to be alerted to these problems, but mainly because you have proved what everyone has always suspected - that the only reason fathers buy their sons computers is so they can spend a week or two before Christmas checking the machine over!***

HACKED OFF

The article in *Express* last week portrayed a very dim view of hackers. In fact the gentleman questioned didn't seem to know what he was talking about.

I myself am a hacker employed by two Spectrum magazines to hack. So please allow me to define:

A hacker is someone who gets around a copy protection to install infinite lives or customise the game to his/her requirements. This is then published with the original protection intact in order to boost his or her ego.

The line is drawn when he or she de-protects the game completely and saves it onto a tape or disk with no protection whatsoever and then passes it onto their mates. They are not hackers and should be branded as PIRATES.

I myself, if need be, could rip off a protection in seconds, de-protect it and save it out. But what would I gain? I certainly wouldn't be any better for it. Real hackers have their own utilities and don't need plug-in piracy aids.

True hacking has no effect on the games market – it's just the odd few who spoil it.

Graham 'Turbo' Mason, Grimsby, Yorks

✗ This is all petty terminology. Sure, your harmless brand of hacking leaves our Mr X's activities looking seedy and undesirable. But to call him a pirate is to compare him directly with the villains ripping off software for commercial gain – impoverishing the industry in the process. After all, Mr X claims not to be in it for the money.

For that matter, he defines himself not as a hacker but as a cracker.

ADVANTAGE ADVENT

Thank you for including Vision Technology's Advent XT-10 Turbo in the review of top-value PCs which appeared in *New Computer Express* Issue 4.

Would you please advise your readers that the Advent XT-10 represents even better value than the review credits, since the price printed of £995 is inclusive of an EGA colour monitor: and not the monochrome option as stated.

Also, we fail to understand why our 10MHZ processor should be described as "reasonably nippy" when the same speedy processor on a rival machine is described as 'fast'. Again for the sake of clarity, we also offer a 15MHZ version for those *New Computer Express* readers who want to buy the fastest XT compatible micro available anywhere. With 1MB memory and a mouse included, this latter model retails for £995 which may be where the confusion arose.

Jan Murray, Managing Director, Advent Computers

✓ Reasonably, the word reasonably could've been dropped. But there are limits to the number of times you can use the word "fast". In any case, the piece did go on to say that the Advent machine was "almost impossible to fault".

The monitor error (which we've already printed a correction for) raises the value rating of your machine to 9/10, an excellent buy.

MSXCOMMUNICATE

I am yet another of those MSX users and owners who also wish to extend a "well done" and a 'keep up the good work" to *New Computer Express.* Seriously, I was pleased to see an MSX section included in your magazine and that, although it is not one of the largest of the alternative computers, you considered it important enough to allocate the space to allow a limited coverage of this machine.

I am not as fervent about MSX as some but still keen to the point of running the MSX Viewdata Host System VBBS for and on MSX, using the Sony HB-F700D MSX 2 machine. My interest also extends to the Atari and I am pleased that I can obtain information on both machines without the need of spending needy pennies on several magazines that sometimes can have nothing of interest.

I hope to be able to speak to that lovely sexy voiced lady who answered my queries on advertising rates very soon (as soon as the Christmas period has finished) and begin making ourselves known just a little more amongst the MSX fraternity and others who may be interested. We are non profit making and do not charge for using the system but require any user to register before full access is made available.

Keep up the excellent format of the magazine and you can be assured of yet another subscriber via our local newsagents.

Vernon Wyland, MSX Viewdata Host System, Maghull, Merseyside

✓ Vernon, you're a droll man. Not as fervent about MSX as some, yet you still run an MSX bulletin board. Incidentally, the "sexy voiced lady" goes by the name of Mark Salmon.

THE GREAT DEBATE *part 746*

Not generally being interested in the 'My computer's better than yours' arguments that seem to have raged since the very earliest days, (even with calculators), I've never really bothered to express an opinion on the matter. However, I've had a few thoughts on the subject which may not have occurred to some of my fellow readers.

On the contemporary comparisons between Amiga and ST, nobody disputes the fact that on un-enhanced machines, the Amiga has superior graphics capabilities. This is fine if like me, you are an artist or graphics freak, (although at the games end of things the difference is barely noticeable anyway). If, on the other hand, I were a musician, then my vote would be more likely to tend towards the ST for its in-built MIDI ports.

My own view is that it's really unimportant who has a preference for which machine. Surely that sort of issue should be left to the computer manufacturers to whom such things are of paramount importance?

After all, I'm happy with my machine and I think of all of you other computer users – whatever your machine – as brethren (and sistren?!) in the same huge but diverse family.

Nevertheless, there does seem to be a basic human need to feel superior to other people and computer rivalry is just a small step in the constant struggle to keep on top (or at least, to kid ourselves that we are!). It seems to be this need which spurs us all on to even greater achievements. So even though the conflict has continued for so long, it has remained a relevant issue to people, and I'm certain that if you ever manage to exhaust the subject, it will promptly be replaced by another equally irrelevant topic for debate.

One brief point on the subject of software piracy. Whilst I am not condoning such action, it makes me sick to see the software houses all acting holier than thou, when their very existence often owes much to blatant stealing from each other in the form of plagiarism and breach of copyright. Also,they steal from the public, not only in the seemingly exorbitant prices they often charge for games which should not even have been released, but also in the paltry fees sometimes paid to programmers, particularly freelancers.

Now before anyone gets all up in arms about that, I know I'm over-generalising and there are many good software houses. For my money Electronic Arts and Psygnosis both rate highly, but I'm sure that my point is clear.

Mat Broomfield, Basildon, Essex

✗ Well, up to a point, old chum. The machine comparison debate is a potent force for analysis, an arena for free and frank exchanges of interesting, illuminating views. Through dialectical debate we can all come to a point of synthesis, which enriches the minds of all computer owners.

It also fills many column inches.

But seriously, such comparisons – providing that they're fair and reasoned well – can help others in making a choice of machines. The idea that it should all be left to the manufacturers is most odd, since they're scarcely in a position to offer objective comment.

Equally, the notion that software houses are engaging in sundry forms of theft is pretty rum. No one has to buy a game, and no one has to work for any software house. Millions have done the first, and thousands are doing the second. Either they're all bonkers, or else it's not theft.

YOU DRIVE ME CRAZY

With reference to your request for experiences with mail order firms, I should like to bring to your attention the activities of SDC, 309 Goldhawk Road, London, W12 8EZ.

In June, I received from them a replacement copy of *Crazy Cars* for my Amiga (which replaced a faulty one they sold me). The replacement disk worked alright but there were no instructions in the box. On June 15th 1988, I wrote to SDC for the instructions. I have since

☞

UPGRADE BATTLE

I am concerned about the advertising of so called D.I.Y. upgrades for the Atari STs.

Being a small repair company, maybe I should say nothing. That's because a lot of these do-it yourselfers' machines end up in my workshop, the owners hoping for a miracle to bring their computer back to life after them following the "simple" instructions to upgrade the computer memory to 1 meg.

But being a computer user and having seen grown men near to tears, I feel that the companies offering these upgrades should be stopped.

Just one example of easy to follow instructions...."Clear out the holes in the PCB for IC no's ...5, 6 etc" Great if you know what they mean. My broken-hearted customer didn't. He drilled them out – yes DRILLED out 256 through plated holes.

Another customer was getting on great until he discovered that he had soldered an IC socket in the wrong way around. So what, it doesn't matter. But him not knowing that, the smart man rang the firm who supplied him with the upgrade. "You'll have to get it out. It mustn't stay in that way," he was told by the engineer! You can guess the consequences: it's now in my workship.

So what am I going on about, I hear you ask.

Well I would like you to point out if possible to the public who intend to purchase and install one of these upgrades that all is not as simple as the ads make out. It would be better and probably cheaper for them to have the work done by an engineer who is qualified, familiar with the equipment and aware of the problems which can arise if care is not taken, and have a six month guarantee thrown in.

If, by bringing this to the attention of potential upgraders it saves just one person heartbreak and despair, then I feel it will have all been worthwhile.

A Buckby, Daval Electronics, Peterborough

✓ ***Numerous users , even relatively non-technical ones, have carried out such upgrades successfully. But whether it's worth taking the slight risk of serious problems for the sake of saving a few quid is certainly questionable. The quality of the instructions varies. Some are excellent.***

WHO DARES, COMMS

I have been reading the latest comms requests in two recent editions of your brilliant magazine and I have decided to add my voice to the argument as well, since it seems that we are not going to get what we want unless we speak up for it.

I have to admit that until recently I did not realise that *ST Amiga Format* was related to *Express*, however I too enjoyed reading the modem article in an issue of *ST Amiga* several months ago and I would argue that it was one of the few comunications features to provide a decent glimpse at the bulletin board scene. The telephone numbers which were included (one in particular) made it well worth the cover price.

I would like to say that comms are in no way an unpopular subject but even if they were then surely the fact that you cover some of the many obscure machines in *Express* is an acknowledgement that you do not aim your magazine primarlily at the popular majority. Almost all of my friends own a modem but with hundreds of bulletin boards now in operation the list of good bulletin boards is minute.

So come on *Express*, pull your finger out and give us a regular comms feature. There's so much that you could write about.

J Pool, Leeds

COMM AGAIN?

First of all I must congratulate you all on a brilliant magazine (at the right price) and in particular for a great no-nonsense series of articles, reviews etc.

With regard to the letter from Andrew Long in *New Computer Express* Issue 4 I think it would be a great idea to include articles and information about both UK and overseas bulletin boards (BBS). Therefore I would be grateful if you could persuade the powers that be to include a small article in the pages of your magazine about the SAS BBS – SAS being the Sheffield Alternative Solution.

Paul Smith, Sheffield, South Yorks

✓ ***We really are a vaguely responsive bunch, you know. With the welter of comms pleas we've received, it is now almost certain that a piece on Bulletin Boards and the like will be appearing in these pages shortly.***

☞ written a further five letters which they have not acknowledged. Nor have they sent me my instructions. Apart from this they advertised one game I sent for but they did not have it and so I think that the service they provide is pathetic.

If you could bring pressure to bear on this company to send my instructions for *Crazy Cars* I would be most grateful.

H D Twiddle, Bransholme, Hull

✓ ***Fear not: the instructions for Crazy Cars are winging their way Hull-wards pronto. But surely this is more of a minor irritant than a real complaint? At least you got a game that worked (the failure presumably had nothing to do with SDC) and so many instructions are written in such a wilfully incomprehensible fashion that you're better off without them.***

No response to five letters is bad news, admittedly. But advertising a game that's not in stock usually has more to do with a software house faiuling to meet its expected deadlines than it has with a mail order firm.

Incidentally, perhaps you encounter problems because you say such rude things in your letters. You addressed this one to "Dear Magazine". At only 48p (Xmas excluded) we're nothing of the sort...

MONITORING TVs

First the obligatory "well done" for a periodical that covers just about everything and caters for almost all. Not actually owning a computer (but working on a network of PCs – Amstrad 1512s and 1640s), I particularly liked the "which computer" articles in *New Computer Express*. Glad to see that you came to the same conclusion I did when I first became interested in buying a home computer about six months ago (still haven't saved enough!)

What bothers me, though, is that most people in the industry assume that not only can we (the public) afford the initial, bank-breaking outlay to acquire a computer but that we will also have enough 'put by' to purchase a monitor too. Perhaps I am in the minority, though I doubt it. What I would like to know is does running software on a TV greatly affect the quality of graphics in games (or the quality of business software?)

Of course, I would seriously consider buying a colour monitor in time, but what are the points to consider when trying to make the choice from the ones available? Here's looking forward to an article on monitors.

Nigel Hood, Sutton Coldfield

✓ ***We will indeed be looking at monitors in some depth in the near future. But in short, they provide much better graphics definition than a standard TV – particularly if you're talking about the ST. A TV is really not appropriate for business computing, and using one rather than a monitor can cause eyestrain. So try to see what a computer running through a TV actually looks like before buying one.***

There again, if the choice is between buying the computer now and then waiting six months for the monitor, or simply postponing the whole decision until you can buy both, then you're better off buying now. At least then you can get some use out of your computer.

PC PROBLEMS

Being a past owner of a very low key computer, I am – at the great age of 58 and only partially employed – looking for a computer for which I can offer my quite good brain to small businesses as a computer service on accounts and graphic design.

Your article on the best value PCs was read with interest. I found your calculations very good, except that in not one of the six do you give any mention of graphics capability or range of software available for each machine.

I am also puzzled as to why you only list Dixons as being the supplier of the Olivetti PCI which you class as the overall winner. Dixons do not appear to be an advertising client. Please could you advise me as I find generally the nearest Dixons has very little interest in computers and cannot offer anything in the way of software programs. I would prefer to buy from a specialist. Also Dixons appear only to offer a package at £699 mono or £849 colour. I would also prefer a 10MB hard disk.

Thanks for a very enlightening magazine and I will try to forward a year's subscription.

R S Crowder, Clacton-on-Sea, Essex

✗ ***There appear to be a few misunderstandings here. The PC guide did indeed comment on the graphics' capabilities of each machine in the Display section of the table. No mention was made of software because all these machines are PCs, and so run all MS-DOS software.***

Dixons was listed as the supplier of the Olivetti PC1 because it has the UK exclusive on the machine. We simply wouldn't be biased one way or the other if a company was advertising with us in any case. The Dixons' packages at £699 and £849 sound suspiciously like Amstrad machines. If you want an Olivetti, you should ask for an Olivetti. If the local Dixons is no good, then you won't be able to buy an Olivetti – simple as that.

If graphics design is intended to be a major part of your future employment, then you should take a look at the Commodore Amiga. Now the bad news: the only big store selling them is Dixons. Try a decent local independent.

FUTURE LOONIES

Love the mag, you've managed to hit it on the head! The whole thing is just the shot in the arm that the computer scene needed (*That's enough mixed metaphors – Ed*).

One thing concerns me and that's the continual use of these boys on your pages for filling up spaces. I specifically refer to the illustration on page 18 of issue 4 where there is featured a young man, who, judging by his vacant expression is the possessor of an IQ of around three.

I've watched your company's mags over the last year, and what with Gillum, or whatever his name is from ACE putting himself in the magazine every five mins along with that ugly girl in the *ACE* T-shirt it seems that Future Publishing has the monopoly on loonies in the Bath region.

Steve Spicer, Scunthorpe, Yorks

PS The Amiga looks crap against my Lynx.

✗ ***Steve Spicer indeed! That's obviously a made up name. We think the girl's cute.***

AN OLD MAN OF 20 WRITES

Well first, I would like to praise your magazine. You've probably heard this before but for me to actually put pen to paper (or more like printer to paper) is pretty rare – in fact, unique.

In my youth I was a Z80 programmer for two software houses, creating mainly budget software. I'm now twenty and presently taking BTEC qualification (I think now four years too late). This has let me find my true vocation, the business computer world.

This is where your magazine comes in. I am a novice where PCs and MS-DOS are concerned. Your magazine, I find caters for the people who have knowledge of computers in other markets as well as the business world, without talking down to its readers and insulting them as a consequence.

Now I've got that off my chest, the alternative reason for writing is I'd like to request, since I'm a student, is there any possibility of creating a special section for people like me or similar? The idea would be to educate them into the world of business computing.

David O Wright, Sheffield, South Yorks

✓ ***Each week, Express carries a special Beginners section. Whilst not being solely for students (or for people whose middle name begins with O), it does act as a useful, straightforward introduction to the complexities of computing.***

AMSTRAD NUTS?

Well done on such a brill mag. I'm not joking: for 48p, and it's weekly, you can't fault it.

Anyway, I'm writing about the PC200. Are Amstrad nuts?! Making a machine with about 40 per cent of the parts missing! Well, what I mean is they made the parts, so why sell a machine, and hope the rest will come by post? My advice is don't buy one until you know it's got leads, disks etc.

Richard Atkins, Cardiff, South Wales

✗ ***No, Amstrad isn't nuts, just a little bit accident prone this autumn (and see the round up of the year for more of the same). The PC 200 fiasco is ever so slightly more complex than is suggested here, but Express has already banged on enough about it already.***

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We stock too many products to mention in any advert, *(we have a regular four page advert in QL World each month)*, so please send us a SAE or give us a ring for our free product guide and price list.

A goods ordering section is now available on the Bulletin Board, so goods can be ordered by Modem.

NORTHERN SINCLAIR SHOW

Due to a lack of previous shows in the North for Sinclair machines Sector Software are to be organising a Northern Sinclair show around Preston in Lancashire (jnct 28 or 29 M6) in about March, anyone who would like to be mailed with details or any Spectrum, QL, Z88 companies or peripheral suppliers please contact us for details.

We have a range of QL, Spectrum, ZX81, and Amstrad spare parts including service manuals, ring for prices on individual items.

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12. Twelve copies of Melbourne House's War In Middle Earth (Spectrum, C64, CPC, ST, Amiga, PC, Apple II)

LUCKY EIGHT

If you missed last week's issue, don't despair. In a fit of seasonal generosity, we've decided that eight people sending correct answers to just this week's questions will win prizes.

ENTRY FORM PART 2

Simply fill in the letter of your choice in each box. Then send it off with last week's form. Remember, a lucky eight can still win a prize if they've only completed this week's questions.

13 ☐ 14 ☐ 15 ☐ 16 ☐
17 ☐ 18 ☐ 19 ☐ 20 ☐
21 ☐ 22 ☐ 23 ☐ 24 ☐

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THE DECIDING DOZEN

Pick the right answer to each question and write the letter in the entry form

13. Last year's Christmas Number One game was
a) *Runout* b) *Out Run* c) *Gauntlet* d) *Donkey Kong Ninja Simulator 3*

14. Nintendo's country of origin is
a) USA b) Japan c) Taiwan d) Canary Islands

15. Commodore's first computer was called the
a) CBM AX1 b) Commodore C5 c) CBM Engine d) Commodore PET

16. Grand Slam has just secured the licence for
a) England FC b) Aston Villa c) Liverpool FC d) Accrington Stanley

17. Activision's *R-Type* was originally
a) Katakis b) A coin-op c) A hovercraft d) A keyboard

18. Amstrad's new £299 PC is called the
a) Sinclair Spectrum +4 b) Sinclair PC200 c) PC 2086 d) most baffling product Amstrad has ever launched.

19. *Jack The Ripper* and *Dracula* were published by
a) Hammer Games b) CRL c) MicroProse d) IBM

20. Alan Sugar's middle name is
a) Michael b) Marmaduke c) Money d) Mud

21. Atari's UK office is in
a) Bath b) Staines c) Slough d) Turmoil

22. US Gold's budget software label is called
a) Kixx b) CodeMasters c) UK Gold d) US Golden Oldies

23. Melbourne House's *War in Middle Earth* is based on
a) The Gulf War b) George Orwell's 1984 c) A Paul McCartney album d) Tolkien's *Lord of the Rings* trilogy

24. Ocean was formed in
a) 1983 b) 1988 c) 1897 d) A few minutes

WHAT YOU HAVE TO DO

This is part two of the competion. Simply answer all 24 questions correctly (including last week's), fill in the two entry forms and send them with your answers to **Christmas Competition, New Computer Express, 4 Queen Street, Bath BA1 1EJ.** Those entering just part two, please mark your envelopes **Express Xmas Comp 2**.

The first 100 correct entries out of the bag after January 10th 1989 will win one of the prizes - taken in reverse order, so that the 100th person wins the top prize. Of these, every twelfth prize will go to someone completing just part two.

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RULES

1. All entries should contain correct answers to both sets of questions (*New Computer Express* December 17th and 24th) as well as the relevant forms from each issue.
2. The competion is not open to any employees of Future Publishing or their relatives, likewise for any of the contributing companies.
3. The decision of the publisher of *New Computer Express* is final.
4. All entries must be received by 9.00am on January 11th 1989.
5. As far as possible, the winners will receive prizes relevant to their formats.

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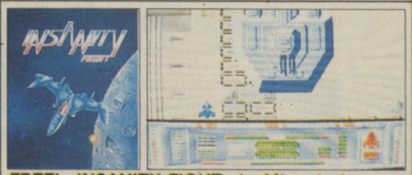
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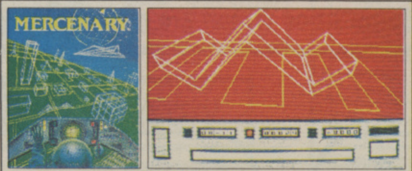
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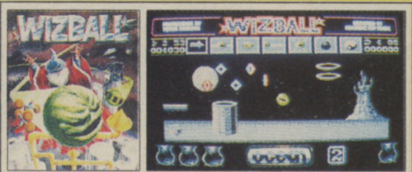
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The greats of 88

Andy Storer polls the pundits for this year's pole-position

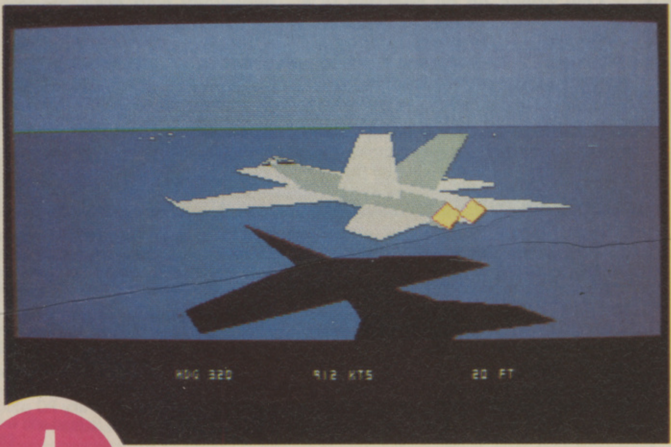
The most significant feature of 1988 for the 16-bit games player was the release of ST and Amiga titles at a rate of over one a day.

Encouraging news indeed for a fledgling market where machine sales only comprise around 10 per cent of home micro ownership. Although the majority of these releases were 8-bit conversions of varying quality, those originating on the 68000 clearly pointed the way for future games. The common factors were more speed, more colour and more depth. But how do you choose from a list of releases for all formats which runs into the thousands? And who should you believe?

***Express* conducted a poll of 16 games reviewers here at Future Publishing to to discover the titles that made the grade. We also asked them which games of 88 should have been binned from the outset.**

Who we asked

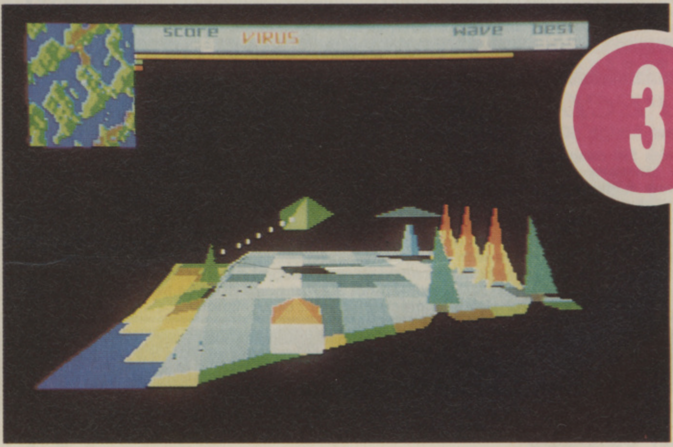
- Graeme Kidd, Bob Wade, Andy Smith, Steve Jarrat – *ACE*
- Steve Carey, Gary Barrett, Pat McDonald – *Amstrad Action*
- Simon Wiliams, Richard Monteiro, Jason Holborn, Mark Higham – *ST/Amiga Format*
- Andy Wilton – *PC Plus*
- Mike Scialom – Future generally
- Rob Ainsley – *8000 Plus*
- Andy Storer, Rik Haynes – *New Computer Express*



1

INTERCEPTOR *ELECTRONIC ARTS* ▪ ***AMIGA***

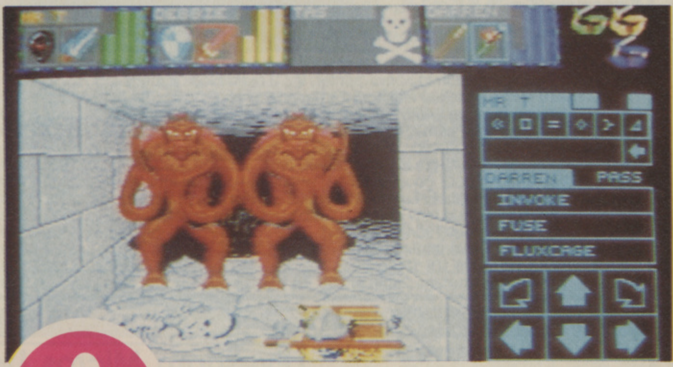
The simulator that sold more Amigas than Commodore, with top-notch, solid 3D, multi-viewpoint graphics, gripping gameplay and brilliant sound.



3

VIRUS *FIREBIRD* ▪ ***ST/AMIGA***

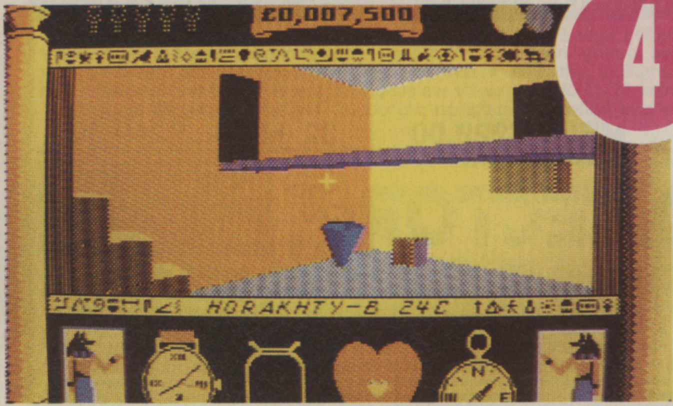
A classy clone of the Arch's *Zarch* where you control a hoverplane on a mission to shoot up seed-sewing killer craft above an alien archipelago.



2

DUNGEON MASTER *MIRRORSOFT* ▪ ***ST***

A role-playing tour de force claimed to have been bought by one in five ST owners – most of whom are still wandering around its labyrinthine depths.

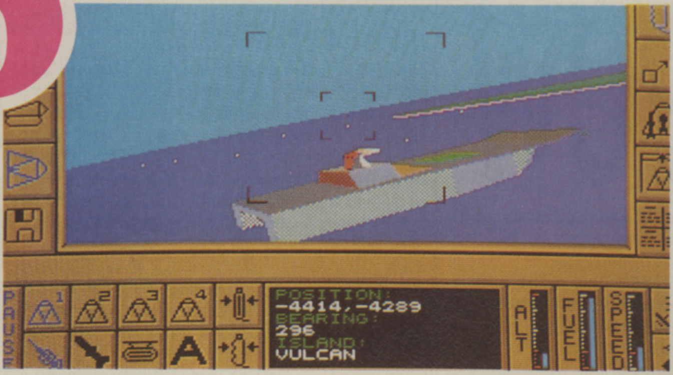


4

TOTAL ECLIPSE *INCENTIVE* ▪ ***CPC***

Walk like an Egyptian through a *Freescape* pyramid, where the Cheops are down, on your way up to destroy the shrine of Sun God Ra.

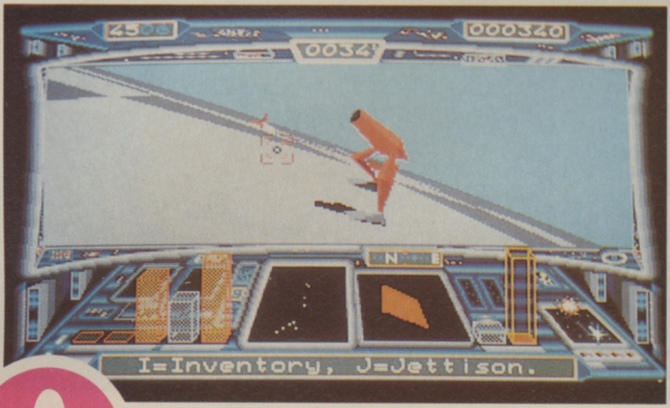
5


PAUSE
POSITION:
-4414, -4289
BEARING:
296
ISLAND:
VULCAN
ALT
FUEL
SPEED

CARRIER COMMAND

RAINBIRD ▪ ***ST/AMIGA***

Realtime's complex combination of strategy and arcade gameplay with expert solid 3D graphics and multi-view synchronised action.

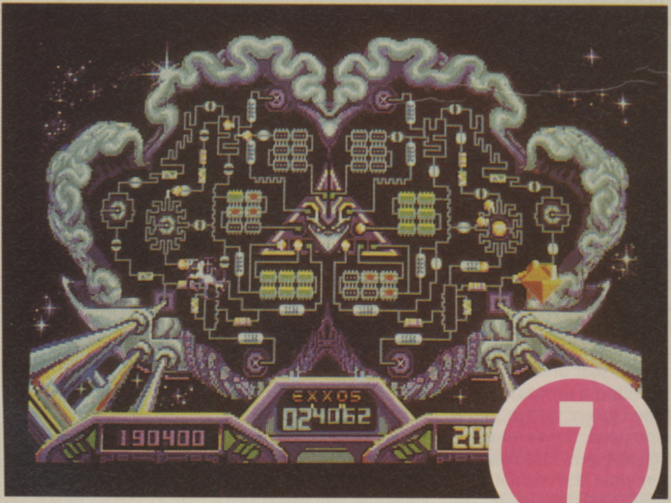

4500
000320
0034
I=Inventory, J=Jettison.

6

STARGLIDER 2

RAINBIRD ▪ ***AMIGA***

State of the art filled vectors as you search a solar system for a neutron bomb and encounter the best animation sequences in any game this year.


EXXOS
024062
190400
20

7

PURPLE SATURN DAY

INFOGRAMES ▪ ***ST***

A four-part instant classic with knock-out sound FX, varied gameplay and excellent visuals as you compete against the galaxy's finest foes.

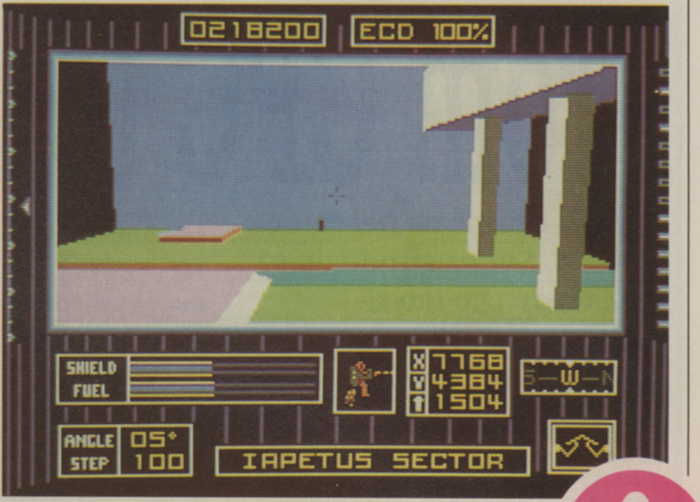
On-the-spot top fives

Andy Storer

	SWEET SIXTEENS	GREAT EIGHTS
1	Interceptor	Total Eclipse (Actually, this was the only 8-bit game I played this year)
2	Purple Saturn Day	
3	Corruption	
4	Carrier Command	
5	Starglider 2	

Rik Haynes

	SWEET SIXTEENS	GREAT EIGHTS
1	Interceptor	Armalyte
2	Carrier Command	Last Ninja 2
3	Dungeon Master	IO
4	Starglider 2	Microprose Soccer
5	Pacmania	Hawkeye

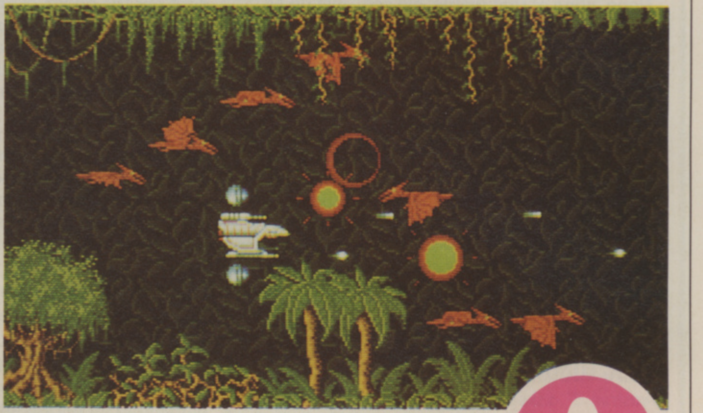

0218200
ECD 100%
SHIELD
FUEL
X 1768
Y 4384
↑ 1504
ANGLE 05°
STEP 100
IAPETUS SECTOR

8

DARK SIDE

INCENTIVE ▪ ***CPC***

Driller's brilliant sequel where you've joined the jet-pack set and you're out to destroy a *Freescape* energy grid powered by a doomsday machine.

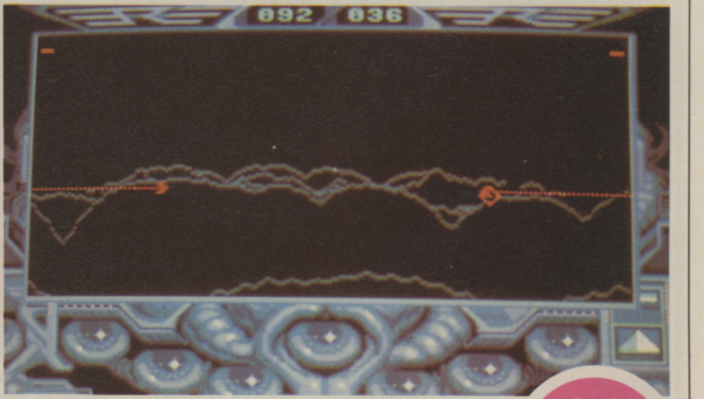


9

MENACE

PSYGNOSIS ▪ ***AMIGA***

The rarest of Amiga releases – an arcade quality shoot-em-up with sexy scrolling backdrops where you blast everything that moves – endlessly.



10

CAPTAIN BLOOD

INFOGRAMES ▪ ***ST/AMIGA***

The French feast of unique fractal graphics featuring icon communication with a horde of aliens in a bid to find your clones. A visual extravaganza.

Better Never than Late

● ***the best of the worst...***

1	OUT RUN	*ST/Amiga*
2	QUASIMODO	*Amiga*
3	AFTERBURNER	*ST*
4	OP WOLF	*ST*
5	MINDFIGHTER	*ST*

From CPC to PCW

Part V: Despite a fiasco on the 664, Sugar strode on to transform the word-processor market, as William Poel explains

One day, early in 1985Alan Sugar announced to his bemused computer department that he was going to produce a CPC 464 with a built in disk drive. He went out ot his way to put down any question of debate when he announced the project, fearing that the techies and "boffins" might open up a discussion on the relative merits of such a thing, and the possiblities of fixing a few more features in the process.

Nope, none of that waffle, old son. Just do as you are told. The important thing was that the return key was a delightful shade of wedgewood blue: number 4789 on the Japanese Industry Standard Colour Chart.

Some of the workers felt that maybe an opportunity to increase the memory to 128K and enhance the CP/M implemention was being missed, but God knew best. The fact that Commodore and others were beginning to use the 128K RAM card was immaterial: Amstrad only ever followed the proven route.

Well, the product was launched (there was hardly what you might call a development cycle) and the ROM was tweaked a bit, and given a slightly slicker BASIC. Enough to be interesting.

Disc discrepancy

Amstrad 3" disks are called "discs", and many have wondered why the "C" instead of a "K". Well, the answer is delightfully simple.

The word DISC was moulded into the plastic case of the CPC464 when the MEJ/Locomotive project team took it over, and it would have cost at least £200 to have the tool changed. And Amstrad does not waste money in such a wanton fashion, does it? The same commercial logic lay behind the very peculiar keyboard layout with the control key at the end of the spacebar.

And frankly, neither feature got in the way of a single sale.

Naturally enough, CPC 464 owners wanted to buy the ROMs to upgrade their systems. Sorry, can't be done.

Of course, it could have been done and, in Amsoft, Amstrad even had the ideal vehicle by which it might have been done. The service arrangements for the CPC 464 were also quite capable of fixing in new ROMs, but in keeping with the strict Amstrad policy of not entertaining upgrades, these were not made available under any circumstances.

A number of enthusiastic, but reticent 464 owners bought CPC 664s. It won't comfort them to know the internal project name of the 664 was the IDIOT (Includes Disc Instead of Tape – I think Marc Jones of MEJ thought that one up).

And then it happened. The CPC 6128. The upgrade every CPC 464 owner really wanted. A CPC 464 with built-in disk drive, and 128K memory, so that a serious amount of RAM was available to run CP/M applications. The idiosyncratic 3" disk system was retained as Amstrad discovered just how much money it could make from the sale of the media alone, as it enjoyed a virtual monopoly of 3" disk supply. Meantime, the rest of the industry began to cut prices on 3.5" and 5.25" disks, and demonstrate just how little money they could make from the business!

Only around 50,000 CPC 664's were made, and since the CPC 6128 went onsale within four months of the CPC 664, it seemed that just about every one of the 664 owners picked up the phone and asked about an upgrade for their systems. Sorry chaps, no upgrades, buy a CPC 6128. And what do you think the 6128 was called within the fortress-like walls of Amstrad? The *big* IDIOT of course.

Quite a lot of fur flew as outraged owners of 664s tried all sorts of complaints and tricks to get an upgrade. But Amstrad held its ground, and reminded folk that if they buy an Escort three months before Ford introduce a new model, then they don't get the option of an upgrade, do they? As usual, the argument made sense, and as usual Amstrad failed to apply the soothing balm to the situation and do a properly accomplished PR job by pointing out just how badly other computer manufacturers had dumped their owners with price cuts, new models and all manner of commercial manouvres that left Amstrad alone as a shining beacon of orderly marketing.

ROM for improvement

The PCW was also going to use completely new word-processing software as an integral feature. But such is the nature of such projects, that the prospect of stuffing it all in ROM was daunting, given the timescales of Amstrad's marketing. And by now, Amstrad was taking an international view – so with RAM getting cheaper by the minute (the good old days), the solution was the obvious one of putting all the software onto disc. Then updates would be relatively painless to implement.

In fact, there isn't a single conventional ROM in the machine. The character set is entirely soft, and the disc boot facility is actually contained in the small ROM of the printer control micro. That was a neat piece of lateral thinking that marked so much of Amstrad's early innovative computer design effort from MEJ Electronics.

• Amstrad's PCW. A mixed reception, but Sugar had the last laugh

His master's Joyce

Almost a year before the CPC 6128 was making it out to the market, the PCW 8256 was beginning to take shape. The idea germinated after a trip to the Far East, when Alan Sugar saw what was happening on the Japanese home front. For by the time the PCW hit the streets in August 1985, the concept was pretty much old hat in Tokyo.

However the project got under way in the autumn of 1984, replete with the sobriquet of "Joyce". We have Roland Perry to thank for this particular handle, and for those of you trying to work out the sublety of the acronym, don't bother. Joyce Caley was Alan Sugar's long suffering secretary. So it was only fair to name the machine after her, as AMS had conceived the PCW to make Joyce and her kind redundant, through the fulfilment of his vision of executives writing their own letters on his volks-computer.

The game plan for the PCW 8256 was to go one better than even the CPC 6128, and run a printer off the same power suply as the rest of the show. Attempts were made at providing a portrait screen, but the physics of the system meant that a cheap VDU tube could not be used. So we all settled for 90 x32 screen, which still provides considerably more information area than the regular 80x25. The obvious enhancement for the new aged PCW range is a machine with paper white 66 line x 90 column display, and it can't be long before that appears, can it?

Marketing the PCW presented some problems. The CPC was unashamedly a home computer, and the PCW was the first of the breed of business computers at home prices. So the IBM dealers hated the idea of the low ticket value, and those who were duly invited to Amstrad to preview the product went away to dream up all sorts of reasons why they weren't interested, and why the PCW would be a flop.

Ironically, most of those folk from the plush computer franchise chains went bust themselves as a result of sticking their heads in the sand and refusing to spot the revolution on the horizon; although Amstrad had invited them all to participate.

In this period of preview, Alan Sugar spotted that the office equipment market was the most likely route, and the theme of "More than a word-processor for less than a Typewriter" was created. Another East End lad made good, Terry Wilding of the office equipment empire that bears his name, felt that no matter how much he was alarmed at the prospect of the PCW changing the face of his typewriter business, he was going to be involved fom day one. And by taking that particular bull by the horns, Wilding Office Equipment has continued to grow and prosper.

The more innovative consumer high street outlets were not too difficult to convince either. Dixons spotted the PCW as a hot product, and so contracted to get an exclusive option on the high street sales for the first 25,000 machines, and in return Amstrad featured Dixons heavily in the launch publicity.

But at the launch, a rather crass show-biz performance, held together by the sobriety of newscaster Richard Whitmore, Sugar unveiled a box to the press that was, horror of horrors, based on CP/M80, featuring a wordprocessing package no one had ever heard of. The press fell about. Pundits wrote leaders suggesting that Alan Sugar be certified, and the whole industry regarded the PCW as the rib-tickler of the year.

This view even rubbed off on the city financial institutions, many of whose representatives at the launch phoned their offices with sotries of caution, as Amstrad appeared to have made a blunder.

Well, they didn't. The price of £399 for the lot was nothing short of astonishing: a good £1,000 less than people had been expecting to pay up to that time. The rest, as they say, is history. ●

NEXT WEEK:

Amstrad's 1512 overtures

The firm pitches itself headlong into the IBM arena, and turns the world of PCs upside down...

clik AMIGA SPECIALISTS

CLIK CHRISTMAS PACK 1 .... £395.00
CLIK CHRISTMAS PACK II £410.00

TITLE	HOUSE	S.S.P	OUR PRC
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Bubble Ghost	Ere Int.	19.99	13.50
Buggy Boy	Elite	24.99	16.50
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Garrison II	Rainbow Arts	24.99	19.50
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Interceptor	Electronic Arts	24.95	17.50
Iridion	King Soft	19.99	13.50
Jet	Sublogic	39.99	26.50
Jewels of Darkness	Rainbird	19.99	13.50
Jinx	Rainbow Arts	24.99	19.50
Kampfgruppe	S.S.I.	29.99	22.50
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Lancelot	Level 9	19.99	13.50
Leatherneck	Microdeal	19.99	13.50
Leatherneck 4 Player Adapter	Microdeal	5.50	4.50
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Major Motion	Microdeal	19.99	13.50
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Mortville Manor	Lencore	24.99	16.50
Motorbike Madness	Psygnosis	14.99	10.25
Obliterator	Psygnosis	24.99	16.50
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Othello	Robtek	9.99	5.50
P.O.W.	Actionware	29.99	19.50
Pandora	Firebird	19.99	13.50
Passengers of The Wind	Glenet	24.99	16.50
Phalanx II	Anco	14.99	10.25
Phantasie III	S.S.I.	24.99	19.50
Pinball Wizard	Kingsoft	9.99	7.00
Platoon	Ocean	24.99	16.50
Plundered Hearts	Infocom	29.99	17.50
Pool	Mastertronic	9.99	7.00
Ports of Call	Aegis	39.99	25.50
Powerplay	Arcana	19.99	13.50
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Revenge II	Mastertronics	9.99	7.00
Rockford	Melbourne House	19.99	13.50
Rolling Thunder	U.S. Gold	24.99	19.50
Romantic Encounters	Microillusions	24.99	16.50
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Sacrophaser	Players	14.99	10.25
Sargon III	Sublogic	19.99	13.50
Scenery Disc II	Sublogic	19.99	13.50
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Sentinal	Firebird	19.99	13.50
Seven Cities of Gold	Electronic Arts	14.95	10.25
Shadowgate	Mindscape	24.99	16.50
Sidewinder	Mastertronics	9.99	7.00
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Skychase	Imageworks	19.99	13.50
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Space Quest	Sierra	29.99	19.50
Space Station	Prism	9.99	7.00
Star Glider 2	Rainbird	24.99	16.50
Star Wars	Domark	19.99	13.50
Starfleet 1	Interstel	24.95	17.50
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Stir Crazy (Bobo)	Infogrammes	19.99	13.50
Stock Market	Tynesoft	19.99	13.50
Street Gang	Players	14.95	10.25
Streetfighter	U.S. Gold	24.99	19.50
Strikeforce Harrier	Mirrorsoft	24.99	16.50
Strip Poker II	Anco	14.99	10.25
Strip Poker II Data Disc 1	Anco	9.99	7.00
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Swooper	Robtek	19.99	13.50
Tanglewood	Microdeal	19.99	13.50
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Art Parts 2	Electronic Arts	9.99	7.50
Audio Master	Aegis	46.00	32.00
Award Maker		39.99	29.50
Aztec C Professional	Manx	199.99	132.50
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Butcher II	Eagle Tree	29.99	21.50
C. Library	Benchmark	79.99	60.50
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Comic Setter		69.99	50.50
Comic Setter Librarys (each)		24.99	18.50
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Data Retrive		57.99	42.50
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Futuresound	Applied Visions	Phone for prices	
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HARDWARE LIST AS FROM THE 1ST OCTOBER 1988

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1084 Colour Monitor	349.99	290.00
1084 Colour Monitor & T.V. Tuner	305.99	287.00
T.V. Tuner	99.99	91.50
Cumana Amiga Drive Cax 354	99.99	91.50
Cimana Amiga Drive Inc P.S.U. Cas 354	150.99	125.00
Amiga Genlock (A500)	299.99	260.00
RF302C Slimline Amiga 2nd Drive	105.99	98.50
A501 1/2MG Ram Upgrade	175.99	150.00
A2000 (B)	1489.25	1275.00
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A2286 At Bridgeboard	1148.85	995.00
A2092 20Mb MSDOS Hard Disk	402.50	375.00
A2300 Internal A2000 Genlock	286.35	250.00
A2010 Internal 3 1/2" Floppy Disk Drive	182.85	159.00

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A262OU Unix Card	1956.15	1755.00
14" Cotron Hi Res Colour Monitor	747.50	650.00
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Video Driver Card (Must be sold with cotron)	396.75	350.00

A2000 SPECIAL OFFER (WHILST STOCKS LAST)

A2000B Computer with 1084 Colour Monitor and A2090/2092 20MB Amiga Hard Disk	2241.35	1970.00

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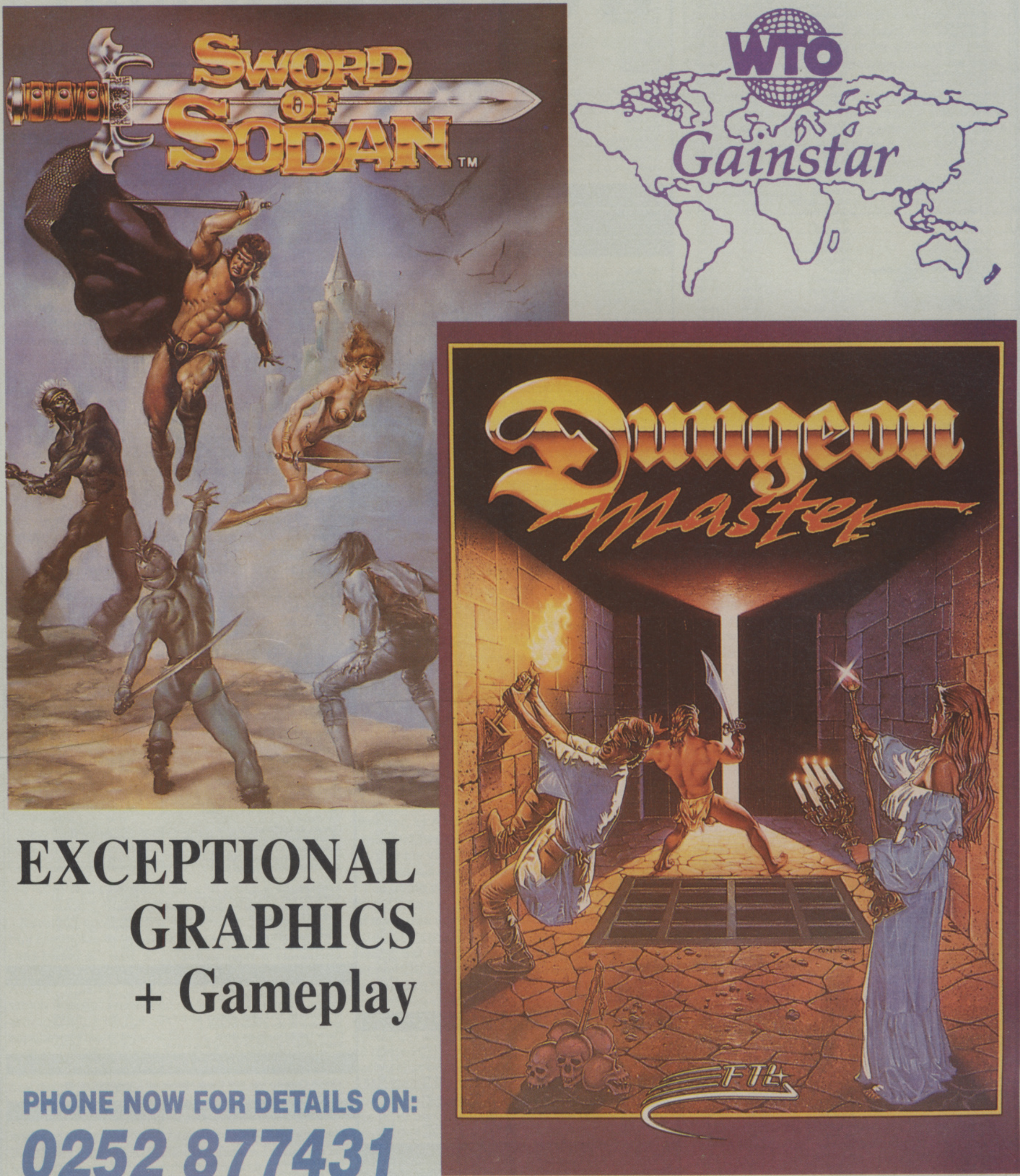
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EXPRESS
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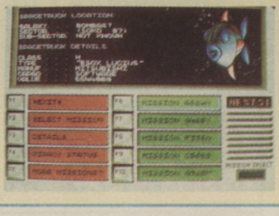
Cosmic capers

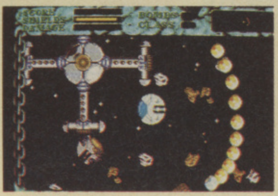
This week it's Bad Dude *versus* Dragon Singe *as Andy Storer dons his asbestos cat-suit, hoists the Jolly Roger and goes to blazes*

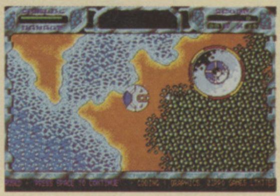
Shiver me ferro-carbons mateys!

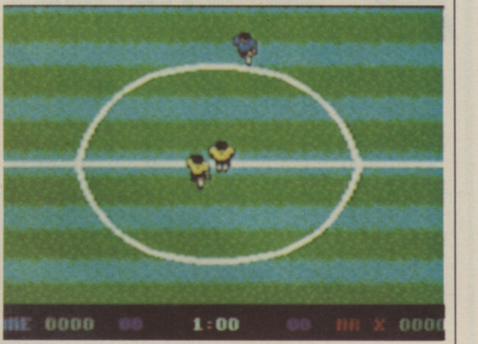
COSMIC PIRATE OUTLAW

Written by console coders, this little beauty lets you streak through the spaceways on behalf of the criminal 'Council' of buccaneers in search of booty to bribe your way through dozens of missions. With arcade-quality graphics, *Pirate* also features seven sub-game simulators for humorous variations on shoot-em-up gameplay. Out on the Amiga in January with releases planned for every other machine this side of Pluto.









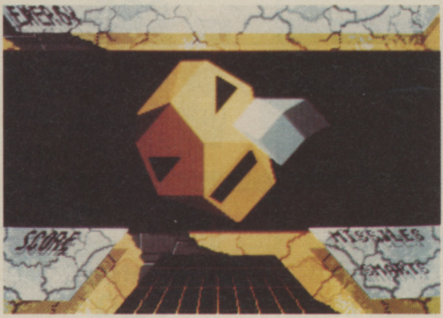
4 SOCCER SIMULATORS

CODE MASTERS

An exclusive shot of the C64 version of Code Masters' tip for the top this Christmas. Despite a roasting by Hit Man Haynes a couple of issues ago, *4 Soccer Sims* will probably clean up in any case. Featuring 360 degree player movement it's also billed as 'revolutionary'. Well there you have it – we were totally and utterly convinced. Full review by Hit Man just as soon as he ties up his lead-lined boots.

STAR BLAZE LOGOTRON

"Stuff the strategy, we just wanna blast" is Logotron's shoot-from-the-lip on this solid 3D blaster that cuts out the content and cranks up the carnage. Featuring cosmic house music to choreograph over a hundred different attack patterns, with photon fire frenetics and smart bomb ballistics in super-fast shaded 3D, it looks and sounds essential.



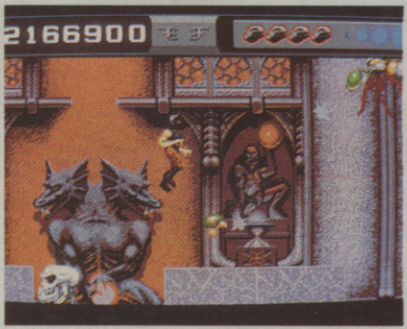
Adrenaline attack!

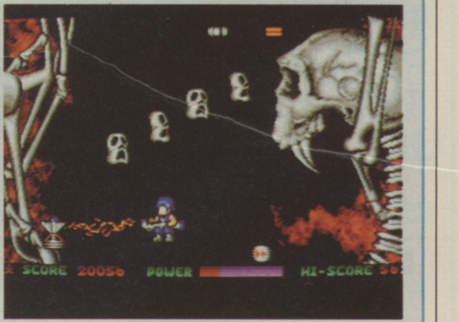
TRAINED ASSASIN/SCORPION

DIGITAL MAGIC SOFTWARE

Two forthcoming releases from a brand new 16-bit house developing titles on Amigas before porting to STs. *Trained Assassin* (above) is a *Menace*-style shoot-em-up scrolling at a smooth 50 frames per sec with you attempting to make contact with animated aliens. And then total them beyond recognition.

Scorpion (below) shifts too, as a fast-moving arcade platform blaster. Run, jump, crawl, crouch, punch, kick and fire your way through five multi-directional scrolling levels of alien adversaries. Makes you feel exhausted just reading this eh? Both out end of Jan.

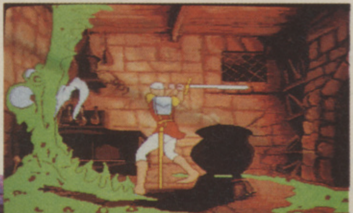


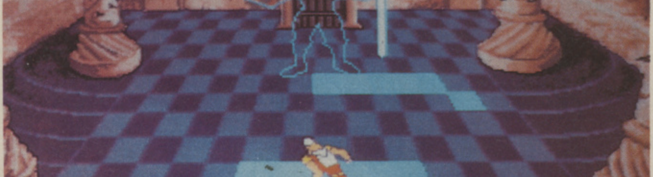


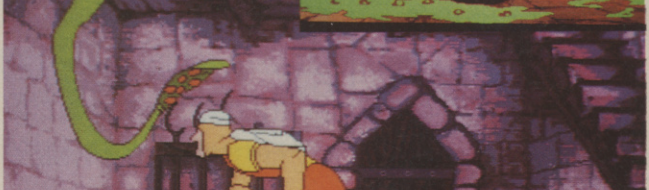
Phew!! What a scorcher!

DRAGON'S LAIR READYSOFT

This is the ace conversion of the laser disk driven, avant-garde arcade hit that was largely unplayable since you had to spend a fiver to get past the first section. Now it's due on the Amiga as a six-disk extravaganza featuring an incredible 130 megabytes of cartoon graphics and sound, and gameplay that sees you searching a castle to rescue a fair princess from Singe the dragon. Oh, and you go by the name of Dirk the Daring, but don't let that put you off.







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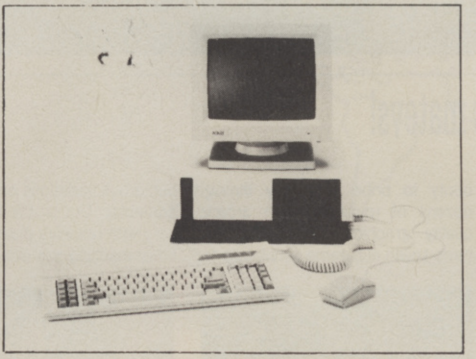

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1988

THE GREAT LEAP FORWARD?

- Will 1988 prove to be the year that computers made their great leap forward?
- Has it been a classic year for games?
- Have PCs continued their dominance of the business scene?
- What impact has been made by16-bit?
- Who have been the year's biggest winners and losers?
- Have computers now moved centrestage, away from boffinsville?
- Which companies have gone bust?
- Who are the great new firms?
- Has the chip shortage really affected computer manufacturers?
- What have Amstrad, Atari and Commodore been up to all year?
- Which have been the major new launches this year?
- Who has had the smartest ideas?
- For answers to all these questions and more, turn the page for *New Computer Express'* extensive review of the year 1988...

☞

1988 THE GREAT LEAP FORWARD?

● The chips are down: Actually, the chips went up, causing chaos to computer manufacturers. The cost of a typical D-Ram rocketed from $3-5 to $15. Given that there are 16 of these inside an ST, Atari can perhaps be forgiven for pumping up its prices 33 per cent back in the spring (though the pill was sweetened by the inclusion of a games bundle with the notional retail value of £413.94).

Amstrad was forced to increase its machine prices by anything from four to 12.5 per cent, once Alan Sugar had got the little matter of branding chip manufacturers "gangsters" off his chest. Acorn and Opus' prices both went up eight per cent. Toshiba predicted that the shortage could last as long as three years. For most, the price spiral downwards party was over. Alone of the major players, Commodore felt no need to increase prices. It stayed aloof, deriding the supposed shortage as proof of others' inability to plan ahead.

● Pirates ahoy:
Victories were gained against the software pirates, but their quantity and quantity increased nonetheless. Back in January Gerhard Martens of TOS International in Torquay became the first pirate to go to prison, receiving a total of 12 months on 14 charges. Big busts in Hong Kong (30 shops, products worth £636,000) and Glasgow (£100,000 worth of 6,000 16-bit games) showed worldwide intent to crack down.

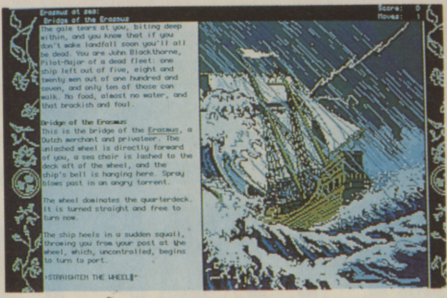
● The Prince and the computer king:
Alan Sugar kicked off his year by donating a PPC, 12 1640s and a cash payment to Prince Charles' Business in the Community charity. Though Amstrad is not necessarily regarded as being in the forefront of charitable work, Sugar followed up by donating £250,000 to Great Ormond Street Hospital in July.

● Good news:
In the spring, Amstrad came second only to Epson in the dot matrix printer market.

● Bad news:
The firm had only a quarter of Epson's share.

● Consoling thoughts:
Though Nintendo failed to make much of an impression in the UK with its console, it could nonetheless be pleased that its overall profit of $450 million was greater than the combined worldwide turnover of all other games software publishers.

● Hype springs eternal:
During the year, Atari announced – or, at any rate, sources close to Atari leaked – plans for at least four different machines, none of which has been launched officially. The Transputer has at least been seen, and with its 13 Inmos T-800 chips processing 130 million instructions per second, it is more than a little impressive. The Stacey, its portable ST, has only appeared in polystyrene form in the States; the £100 ST console has the virtue of being admitted officially; and the Super ST with 4,096 colours, fast vertical and horizontal scrolling and stereo sound, is said still to be on the cards for an early 1989 release.



Erasmus at sea:
Bridge of the Erasmus

Score: 0
Moves: 1

The gale tears at you, biting deep within, and you know that if you don't make landfall soon you'll all be dead. You are John Blackthorne, Pilot-Major of a dead fleet: one ship left out of five, eight and twenty men out of one hundred and seven, and only ten of those can walk. No food, almost no water, and that brackish and foul.

Bridge of the Erasmus
This is the bridge of the Erasmus, a Dutch merchant and privateer. The unlashed wheel is directly forward of you, a sea chair is lashed to the deck aft of the wheel, and the ship's bell is hanging here. Spray blows past in an angry torrent.

The wheel dominates the quarterdeck. It is turned straight and free to turn now.

The ship heels in a sudden squall, throwing you from your post at the wheel, which, uncontrolled, begins to turn to port.

>STRAIGHTEN THE WHEEL

● No business like no business:
Analysts proclaimed in February that the expected cheap business software boom off the back of the Amstrad PCs failed to happen in 1988. WH Smiths dropped its so-called "clonesoft" line-up from 30 to six titles; Virgin scrapped its proposed business range; and NewStar/Paperback upped its prices to avoid the "if it's cheap, it must be lousy" argument. Sagesoft, meantime, scoffed at such talk and had a record year.

● Auf wiedersehn, Ariola:
Despite all its great talk and plans and publicity, German software publisher Ariolasoft was forced to withdraw from the UK in February. It had had "no relevant effect on the market". Translated from marketingspeak into German and back into English, this means that it didn't sell enough games.

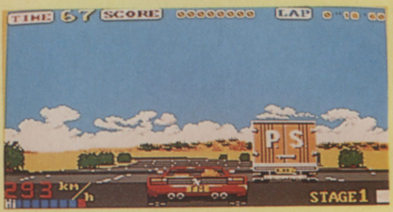
● The 64 strikes back:
Amidst all the talk of a 16-bit takeover, the C64 increased sales and is now within striking distance of 10 million units sold throughout the world.

● Not so cheap and nasty:
Once reviled budget software took all the places in Gallup's Top Ten back in the spring.

● Thanks a bundle, Amstrad:
The firm bundled the obscure *Organizer* with its PPC and commented: "It's only important to us as a sales gimmick."

● Figuring it out:
By mid year, PC sales were up either 16.5, 22.4 or 98.4 per cent, depending which research firm you believe.

● Big Blue back in black:
Astonishingly, the year saw IBM record its first year-on-year profit since 1984.



● Gold block:
Out Run from US Gold became the first game to ship out 250,000 copies, though reviews were not universally ecstatic (or even positive in some cases).

● End of an era I:
Steadfastly text-only Infocom finally succumbed to producing games with graphics. *Zork Zero*, *Journey* and *Shogun* appeared in the autumn.

● End of an Era II:
One-time Sinclair exclusive stockist WH Smiths dropped the Spectrum from its shelves in October. This meant that the chain had a Sinclair-free Christmas for the first time in seven years.

● Phew what a scorcher:
Boss of computer shop and mail order firm Cestrian was gutted – as was his shop – by petrol bomb on the last day of November.

● The end of the World:
The *Personal Computer World* Show apocopated itself by losing the World from its name. That wasn't enough for Domark, which wanted changes of a more substantial, financial nature. Having announced its intentions to quit the show and having spent much of the year lambasting the organisers for "killing the golden goose", a remarkable volte face saw the Do-Dos appear at the show nonetheless. Moreover,

COURT
THE PERSONAL COMPUTER SHOW
THE 1988 PERSONAL COMPUTER SHOW

they were delighted to be back, had always had a high regard for the event, etc etc.

Elite was not to be placated. It dubbed the venue a "disgrace" and "bloody awful". But a worse threat looms for next year. Not content with producing the most bafflingly disconnected stand at this year's show, Atari is now planning to have 40 per cent more space next time.

● From little Acorns...:
Beeb-only veteran Watford Electronics launched a range of PCs in August.

● This is the modern world:
One third of British businessmen have no access to a computer, according to Gallup in the summer.

● Price cut of the year:
Compsoft reduced its data analysis package *Debut* from £2,000 to £695 in August; PC owners still stayed away in droves.

● Not your computer magazine:
Veteran publication *Your Computer* was put up for sale; stampede to buy failed to occur. Owner Focus prompted much mirth in publisherland by saying that two bids over £100,000 have been received. Nothing has happened since.

● Take umbrage, drop firm:
Telecomsoft acrimoniously split with adventure company Level 9 in February, claiming its graphics were "abysmal" and "dead boring".

● Golden oldies:
Sir Clive Sinclair and Atari founder Nolan Bushnell linked forces in the summer to sell the Z88 in the States.

● Sick as a parrot I:
In April Commodore extended its sponsorship of Chelsea to 1991 in a deal which could cost the firm £1.4 million. Weeks later, Chelsea were relegated from Division One.

● Sick as a parrot II:
Commodore's other great sponsorship was of athlete Tessa Sanderson. Unfortunately, a seemingly inevitable injury meant that she failed even to throw a javelin at the Seoul Olympics, let alone win the hoped for gold medal.

● Lotus beater:
Lotus boss Jim Manzi is the highest paid computer exec in the world, with a salary of $26,337,000. He may have the fattest cheque, but he still faced the same problems on timing as all other software publishers. Lotus *1-2-3 Version 3* was delayed until the second quarter of next year, with "development difficulties" being blamed.

● Beauty and the beast:
Barbarian – bespattered with the gorgeous, pouting etc etc Maria Whittaker – turned up on the dull old Beeb in April.

● The media is the message:
Activision mutated into Mediagenic in May, for reasons which it alone understands. It was drolly accused of wishing to be like the Reading-based veteran Audiogenic. Mediagenic shrugged its shoulders good-humouredly – and promptly moved to Reading.

COMMODORE
OLYMPIC
challenge

16-BLITZ

"Will 1988 be the 16-bit breakthrough?" asked the pundits of 1987. A year on, we know the answer is a gob-smacking, "Yes!" At last it's the hordes of Specc-tators who have to wait for conversions of the hottest games, and the ST and Amiga lead the field. So what are the ten products that made it all happen?

- **Arnor what I like:** If software sells computers, *Protext* should have accounted for at least 10,000 sales of both STs and Amigas. Without Arnor's fantastically flexible word processor, we'd still be engraving tablets.
- **Graphic illustration:** Two phenomenal graphics packages pushed the Amiga and ST to new horizons. Electronic Arts' Amiga *Deluxe Photolab* at last allowed you to mix graphics in any screen mode, and AMS's ST *Flair Paint* showed how fast an ST really could shift those pixels.
- **Creative spark:** Best value for money of the year was undoubtedly Mandarin's ST game creator, *STOS*. Sprite designer, music editor and programming language in one, all for the price of a doner kebab. (Well, kebabs cost a lot in Bath.)
- **The other darlings:** HiSoft continued its reputation as programmers' darlings with *Power BASIC* and *DevPac 2*. No nonsense – just fast, reliable and flexible programming.
- **Simply super:** Precision followed up the success of its ST and Amiga *Superbase* database with *Superbase Professional*. Quite simply, look no further for a power user's package with the lot.
- **Streets ahead:** *Timeworks DTP* on the ST showed that Atari had made a blunder picking *Fleet Street* for its DTP hardware bundle, while the Amiga's *Professional Page* (via HB Markleting) proved you really can challenge a Mac - for a price.
- **Rombo too:** VIDI ST from Rombo brought new life to the ST's pixels. Hook it up to a video camera and you got the fastest frame-grabber in the west.
- **Video tasty:** ASD's Mini Gen – only just out at £99 plus VAT – already looks like a giant step for mankind. The price-busting genlock lets you mix the Amiga's graphics onto your home videos within a sane budget
- **Coining it:** Arcade machines slept uneasily at night on their beds of 10p coins when they saw games of the year *Interceptor, Captain Blood, Carrier Command, Starglider II* and *Virus*.
- **Publish and be swamped:** And 1988 was the year that magazines took the ST and Amiga to heart. No fewer than five new titles appeared in the eight weeks from mid-May-. Of course, they weren't all as successful as *ST Amiga Format* and didn't all have a 3.5" disk on the cover each month for less than £3... (*That's enough hype – Ed.*)

Heroic Failure of the Year goes to *True BASIC* – a valiant attempt by BASIC's original designers to standardise the programming language. Like all standards, everyone said, "How interesting," and got on with something better.

And what about those products without which the year wouldn't have been the same for all we journalists? Take a bow please: Atari Transputer Workstation (nee Abaq); Atari CD ROM – a year late and counting; Amiga Workbench 1.3 and Enhanced Chip Set; Stacy, the ST Laptop; Elmtech's Parsec graphics board (remember that?); *Calamus*, the DTP package 'launched' at the April Atari Show; and *Page Stream*, its arch-rival which is always two weeks away.

Aaah, pure nostalgia. If it wasn't for good old vapourware, what would we have based those countless 'news features' and 'exclusive previews' on? Watch out for some of them in 1989.

Perhaps.

Ben Taylor, editor *ST Amiga Format*

● Copyrights and wrongs:
Just as the computer industry was quaffing the last bottle of champers to celebrate the belated inclusion of software in the goverment's Copyright, Designs and Patents Bill, so US Gold was covered in embarrassment on copyright. Firstly, Mediagenic won a court action over *Katakis*, claiming it ripped off *R-Type*. Then Nintendo's m'learned friends pointed out that the Gold/Rainbow Arts title *Great Giana Sisters* was simply too close to its own *Super Mario Brothers*. And then it transpired that Gold had to pull a further five Rainbow Arts games. All this from the firm which had hitherto been the most assiduous copyright protector.

☞

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● What a difference an a makes:
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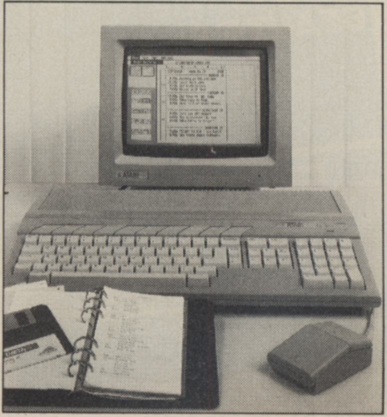


PC WORLD: BETTER, CHEAPER

In the PC world 1988 wasn't a year of earth-shattering events, with no IBM PS/2-style launch and no births of any new *Lotus 1-2-3* legends either. Instead everything got steadily better, some things got a bit cheaper, VGA graphics became the new target for low-cost clones to meet, and everyone started talking earnestly about networking and multi-tasking, in preparation for selling you lots of the necessary hardware next year.

Best of the year's bunch were:

- **The Amstrad Network:**This £399, 3-station kit gave the networking world a much-needed kick up the backside. Complete with a network operating system offering good print spooling and security features, it could clean up as the hardware platform for the 'multi' editions of low-cost software packages currently hitting the streets.
- **Power C Works** from Mix Software. Why not *Turbo C* or *Quick C?* Because this one comes with the best trace/ debugger of all, the best C programming tutorial, the full source code to its libraries (Borland charges you £200), and yet at £59.95 is only half the price.
- **dBase IV:** New features galore for the world's top-selling database – built-in semi-compiler, split-screen trace/ debugger, the 'control center', dozens of language enhancements and a complete IBM SQL subsystem. Ashton-Tate really is trying hard.
- **Finesse Desktop Publisher** from AMS. Only £115, fast, very easy to use, gets the best out of both a £200 dot matrix and a £4,000 *PostScript*-equipped laser printer. One serious flaw: no text flow round graphics. But overall, it's a delight.
- **Amstrad PC2000 range:** Unexciting prices at first glance, but when you add up the mouse, *Windows*, VGA graphics and the 2386's 4 Mbytes of RAM, it's clear that Amstrad has done it again. The keyboards are still sub-standard, and steer clear of the medium-resolution monitors, but it's these machines, not IBM's, which will open up the 286/386 market in the UK.
- **PC Anywhere III:** My personal favourite, it lets you use one PC to operate another across a communications link. Sounds mundane, but the level of control is fantastic (even Ctrl-Alt-Deli is supported), and it works. Genuine, properly-engineered software.
- **Framework III** from Ashton-Tate. The last gasp of the old-fashioned mega-package, as Macintosh-style integration takes over in the shape of *Windows* and OS/2? Don't you believe it. This one's a real pleasure to use, and runs in a darn sight less than four megabytes of RAM.
- **Lotus Agenda:** *Hypertext* in a smart box from corporate software's number one firm. You type in your random ramblings and it prints out your action plan – or so the theory goes. Rather more laborious in practice, but still an interesting idea to keep you occupied while waiting for *1-2-3* version 3.0.
- **Borland Sprint:** One of the strangest word processors of all time – chameleon-like user interface (imitates other WPs) and a built-in text-processing language roughly on a par with C. Fix the bugs, drop the price and Borland'll have a winner.
- **Mini Office Personal** Includes Word Processor, Spreadsheet, Database, Label Printer and Communications – and they're all pretty good. At £30, hard to beat as an all-round get-you-started package.

Paul Stephens, editor *PC Plus*

● Not the Amstrad effect:
Within days of signing a deal in the summer enabling Amstrad to sell cut down versions of its networks, Corvus filed for Chapter 11 – which is the closest you can get to being bankrupt whilst still remaining just about credible.

● The devil makes work...:
Idle dealers in the City whiled away their post-Black Friday blues in December by playing Mediagenic's *Leisure Suit Larry*. That they were playing a pirated copy was evidently of no concern. But retribution was at hand. The copy was bugged and promptly caused a number of important computer systems to crash.

● Truly home computing:
Acorn founder Chris Curry popped up again in '88, this time with plans to give away computers as part of Keyline Shopping (from home). He plans to have three million units in place by 1991; nothing has been heard since April.

● Loadsamoney:
In October,Amstrad recorded profits of £160.4 million for its financial year. This means that the firm is making just over five quid for every second of every minute of every hour of every day in the year.

● The Dragon factor:
The Welsh, it transpired in July, have more computers per head than any other part of the UK.

● Wot's this eunuchs then? :
A sceptical world was told to await the arrival of Acorn, Atari and Commodore machines running Unix.

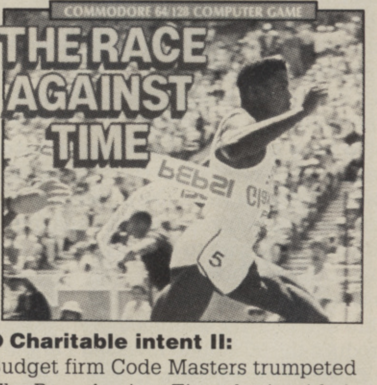
● Amstrad means business:
After many months of leaks and guesses, Amstrad duly launched its upmarket range of 286 and 386 machines in September. Amstrad was now a serious business contender, the world was told. Since the PC 200 was also unveiled at the same time, the world was not wholly convinced. Launching without products – due to the abiding chip shortage – also cramped Alan Sugar's style, so there was less to be convinced about. 1989 will provide the answers.

● Alligata snapped:
Old style games publisher Alligata Software was taken over by Superior in October.

● Portable computer firm I:
Tandy picked up portables firm Grid for the tidy sum of £55 million in March.

● Portable computer firm II:
Atari snaffled up the rights in August to market the £199 Pocket PC from DIP.

● Charitable intent I:
In January, the games industry announced another charity compilation in the line spawned by the hugely successful *Soft Aid*. This one was in aid of the Great Ormond Street Hospital fund and the NSPCC. Unfortunately, though collated, the compilation has yet to appear. It will be out next year.



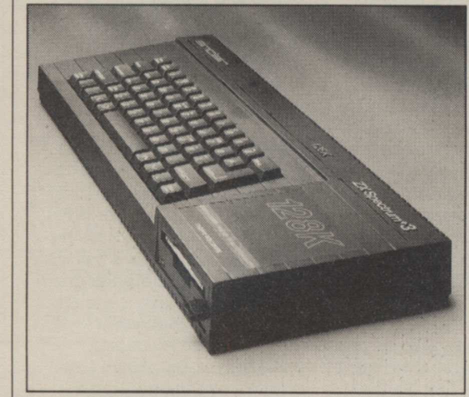
● Charitable intent II:
Budget firm Code Masters trumpeted *The Race Against Time* charity title in support of Sport Aid '88, back in the spring. It would, said Code Masters, be the first game to sell one million. Fiascos over athletes' rights – Jesse Owens' photograph, Carl Lewis' footwear sponsor – meant a considerable delay. The title was pronounced a failure at the same time that Sport Aid itself went bust.

☞

1988 THE GREAT LEAP FORWARD?

● Marriage of the year:
Melanie Weaver and Jez Thorpe, who became the first couple to wed after accessing each other through Micronet's multi-user game *Shades*. Runners up: Epyx and Infogrames, with their November merger qualifying as the strangest liaison of 1988.

● Universe is tiny, shock:
Amstrad picked up three censures from the advertising Standards Authority during the year. The most remarkable came in April after the firm claimed that there was a "vast universe" of Spectrum +3 games. The ASA dimly recorded that at the time there were, in fact, just 31 titles.



● Good news:
Commodore lopped some £200 off its PC1 in May, making it Britain's cheapest PC at £269.

● Bad news:
The PC1 is all but unexpandable.

● What's in a name?:
Telecomsoft caught the bug of vogue titles by coming up with something called *Ninja Scooter*. Only the lack of *Simulator* in the title and a football element in the game prevented it being the computer marketing coup of the decade.

● Not so sage:
Sagesoft's most successful ever product launch was the £199 network package, Mainlan, which greeted the world in November. Unfortunately, it crashed if left unattended and thus had to be re-written.

● Nuclear reactors:
WH Smiths and Boots banned US Gold's *Chernobyl*.

● To lose one dollar is unfortunate...:
But to lose six million of them in six months like Borland did looks like a bad case of carelessness. Micropro wasn't smiling, either. It contrived to lose 5.1 million of the things during the year.

● Bonding together:
Elite and Domark combined in August to produce the 007 game *Live and Let Die*.

● Cutting comments I:
Commodore absolutely, categorically denied any prospect of a £100 cut on the Amiga 500 in May. Days later, it happened. In much the same way, it also ruled out bundling a modulator with the 500. A few weeks later, that happened, too.

● Cutting comments II:
Towards the year's end, Amstrad cut the prices of the PC1512 and 1640 ranges by between £50 and £250, the abiding D-Ram shortage notwithstanding.

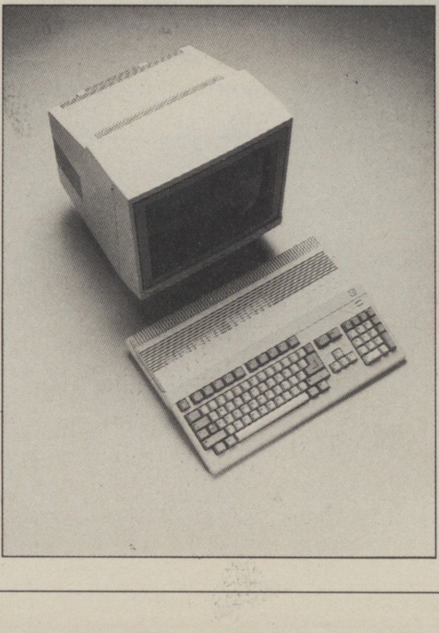
● The writ stuff:
Apple sued Hewlett Packard and Microsoft in a copyright dispute. Code Masters slapped a writ on Alternative in a row over packaging. Martech is in the process of sueing EMAP, following a claimed breach of agreement over the game *Phantom Fighter*. Elite said it would sue US Gold for alleged libel over a comparison made between *Overlander* and *Roadblasters*. Digital Integration pondered m'learned friends' advice in the wake of new firm Digital Inspiration setting sail.

● Transformation of the year:
As part of its lobbying against EC printer levies, in April Epson ran a six page advert in the *Financial Times* in which a geisha girl gradually mutated into Margaret Thatcher. Grown men are known to quake at the recollection. Whatever, swingeing tariffs up to 33.4 per cent were duly imposed.

● Patently unclear:
IBM demanded payments from all firms producing PC clones of one per cent of total sales to April '88, and five per cent thereafter. Few responded. Some, such as Dell, saw it as a means to produce IBM-acceptable PS/2 machines, and so paid up. But Amstrad declared: "We wish them the best of luck – as long as they don't come knocking on our doors." A few weeks later, Amstrad signed a deal with IBM, for which it apparently paid £6 million – more than the cost of Sinclair Research back in 1986.

● Whatever NeXT?:
Apple founder Steve Jobs re-emerged in the autumn with his new firm NeXT. First product was a strange black cube, which is 68030-based, with eight megs of RAM, a 68882 floating point procesor, a 256 meg erasable optical disk, built-in networking, multi-tasking – all for just under $4,000.

● Trouble in store I:
South London firm Display Electronics claimed to have "20,000 square feet of electronic and computer goodies". Further, it reckoned it was "England's largest surplus store – seeing is believing". An enquiry by the Advertising Standards Authority in January revealed that far from being a massive retailing site, Display operated from a single room measuring just 15 by 30 feet.



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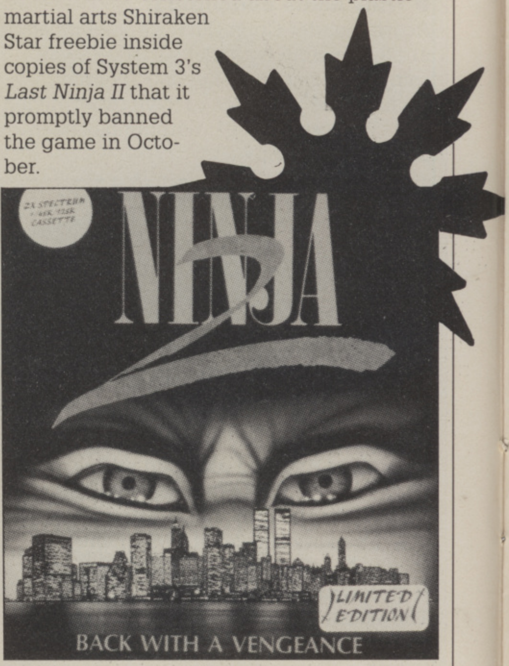
● ST Amiga formats:
Argonaut became the first software developer to produce a game for both STs and Amigas on the same disk. The debut release in this form was *Starglider II*, which in October duly became the first 16-bit only title to top the Gallup charts The principle of one disk, two versions also led to the launch of *ST Amiga Format* magazine.

● Trouble in store II:
Tandy emerged as the least profitable electrical outlet in the UK at the beginning of the year. It has since considerably – and understandably – re-jigged itself.

● Trouble in store III:
Boots was so concerned about the plastic martial arts Shiraken Star freebie inside copies of System 3's *Last Ninja II* that it promptly banned the game in October.



● Maintaining standards:
Compaq, Olivetti, Amstrad, Zenith, Hewlett Packard, Epson, Tandy, Microsoft, NEC, Wyse and Intel all combined in September to form EISA – Extended Industry Standard Architecture. This aims to produce a standard 32-bit bus which is upwardly compatible with existing products. In other words,

it's part of the battle against MCA/PS/2 machines, where in effect everything is new and largely unusable with the old.

● **League of nations:**
Atari scoured the earth for its software assault in '89. It discovered the DTP package *Calamus* from Germany, a Polish database and a Canadian spreadsheet. More remarkably, it revealed plans in November to release titles not only for the ST and PC, but also for the Amiga from its great rival Commodore.

● **Amstrad problem I:**
In September, the firm quietly slipped out the Spectrum +2A to supersede the old +2 with "glued on" datacorder. Unfortunately, the pin-outs haven't been changed on the new machine, which means that precious few – if any – of the standard Spectrum peripherals will work with it. Even worse, a thus far unquantified number of games appear not to run on the machine.

● **Amstrad problem II:**
PCW shortages in the autumn meant that a batch of German replacements were shipped over. The difficulty here was that the male and female connectors were different, which meant that the PCWs couldn't be expanded. Having decried the problem initially as "nonsense", Amstrad eventually had to offer a free gizmo to convert the German stock.

PIECES OF EIGHTY-EIGHT

The most significant PCW events of 1988...

▪ **Stop Press!** AMS's desktop publisher appeared in February to widespread acclaim. Its back-page ad described the add-on *Extra! Extra!* as "complimenting" *Stop Press.* Well, it is a very nice-looking package. Such pretty colours on the box.

▪ **Games people play:** CP Software's *Clock Chess,* released in May, claimed to be the strongest 8-bit program in the world. All down to clever programming, enterprising play, excellent opening book and the fact that when you play it the computer's clock moves half as fast as yours.

▪ **O bydded i'r hen iaith barhau:** Welsh *LocoScript 2* appeared in June, with all the menus and commands in that tongue. Rumours of a hacked copy that puts menus in English until someone English walks into the room whereupon it changes to Welsh, and of a terrorist version that sets fire to any disk in the drive with details in English about Welsh holiday cottages, were untrue.

▪ **Musical cheers:** In July EMR brought out its *Pro-Performer* musical package for the PCW, in the very month it had planned. And almost the same year.

▪ **My flip is showing**: October was for people in two minds: *Flipper* came out. It split the PCW in two letting you run *LocoScript 2* or CP/M in one half, CP/M in the other. Locomotive's worries that this would, as with epileptics, cause odd side effects proved unfounded.

▪ **File concoction:** December saw the first *LocoScript*-compatible program: *LocoFile*, a database add-on. Locomotive sold thousands to PCW owners who think CP/M is useless – all it ever does is repeat what they just said. A>Hello – HELLO?

▪ **Head cases:** Amstrad's decision to stop bundling plastic disk cases with disks caused growing unrest. They're unnecessary, dealers said, you can prop up small vehicles with 3" disks without harm. Outraged punters insisted this was an infringement of civil liberties; they wanted disk cases at any price. Enterprising companies sold off the 2p cases at 50p each.

▪ **PC 99, 98, 97...** Locomotive neither confirmed nor denied it had begun work on *PC LocoScript*, but in many pundits' minds the countdown had begun. If it came out, the biggest problem would be explaining to users why there are no cases with the disks.

▪ **Glad to be game**: Particularly noteworthy of 1988's games were illustrated adventures *Lancelot* and *Corruption*, the shoot-'em-up *Academy*, and soccer arcade game *Matchday II.* The trend towards illustrations with text adventures was encouraging, even if the PCW screen makes everything look as if it's behind a Venetian blind.

Rob Ainsley, editor *8000 Plus*

● **Amstrad problem III:**
It somehow happened that boxes of the new PC 200 went on sale in November in Comet – the exclusive supplier – without operating software, manuals, leads, bundled games, monitors or even the computers themselves. Comet claimed it was an Amstrad "cock-up".

● **Not so weakly:**
1988 was also the year that *New Computer Express* began publishing in its idiosyncratically tiny type. Amongst other reasons for existing, we set out to challenge the notion that weekly computer titles necessarily have to be lifeless entities. Early sales figures suggest that many of you already believe we've succeeded. Here's to 1989.

● **The great leap forward?:**
For all the occasional difficulties and oddities, 1988 will go down as the year when computers took off again. It was the year when the 16-bit leisure machines – the ST and Amiga – truly came of age. It was the year when PC sales went through the roof. It was the year that the stigma of computers = boffins was finally shaken off, with computers at last becoming wholly mainstream items. It was the year when the clear division between business users and games players was blurred forever. It was the year when many major companies recorded record sales and profits – always a good barometer of how well things are going. It was the year when manufacturers simply ran out of computers, in what will quite possibly prove to be the best Christmas since 1983. It was the year, in other words, of the great leap forwards...

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VOUCHERS
EXPRESS VOUCHER

Since *Express* has not been in existence for anything like a full year, we're indebted to trade title *CTW* for some of the details in this round-up.

● **Success by degrees:**
Unsurprisingly, the final comment of the year has to be about the remarkable Alan Sugar. The old cove has been called many things in his time, but Doctor of Science was not one of them. City University Business School changed all that in December, in recognition of his commercial success.

ANOTHER ***Fun*** EXCLUSIVE

REVEALED! The shocking events of 1989

1989! A portentous, mystic number, which when turned upside down and divided by 10.301801 and a bit results in '666', proving that we are all in for a devilishly interesting year! So what else could we do except ask that old devil MEL CROUCHER to predict the next twelve months. Which is why he's whipped out an electric Abacus created in his own image (two thick planks, several crossed wires and a load of balls). And here's the result.

JANUARY

- With only three years to go before the Single European Act, British Nationalists make sure that Loriciels and Infogrames don't penetrate any more of the market. They cut their Gauloise off.
- And in a totally unconnected development, for the first time a batch of young offenders is fitted with computerised electronic tags. But when their case notes are run through the Court's *Locoscript* spell checker, the instruction for 'penal tagging' becomes something much more sensitive.
- In a series of dawn raids, the heads of top software houses Ocean, Mirrorsoft and Electronic Arts are arrested by the Anti-terrorist squad. Chief Inspector Hugh Anchor tells a packed press conference, "We became suspicious when we realised that the names David Ward, Peter Bilotta and Trip Hawkins contained the initials IRA. Then it became obvious they were criminals when, under interrogation they admitted to selling dangerously addictive products to innocent youngsters."
- **Useful dates: 1st – New Ears day (Planet Vulcan)**
  3rd – Festival of the Return of the Naff Gifts

FEBRUARY

- The satellite dish war hots up as manufacturers tout their products to a confused public. Amstrad is accused of making money for old rope, but Alan Sugar replies "frayed knot!" Rupert Murdoch releases large numbers of oversize dome receivers, but the girls demand them back. Clive Sinclair's square mini receiver is found to be based on a well-known wafer design, and Crawfords confirm that it's crackers. The Japanese achieve spectacular success with their multi-purpose satellite receiver, used as a wok when it's not hanging on the wall picking up TV signals. They call it 'the fry on the wall'
- **Useful dates: 14th – St. Vaseline's Day (Shropshire)**

MARCH

- The Baltic Repbulics erupt in rebellion against Moscow, and a puppet government is set up under Gerry Anderson.
- A use is found for the millions of unsold salmonella eggs when they appear on the faces of bankrupt budget software houses.
- Meanwhile, students continue to riot in Britain until the Ministry of Education (plc) Computer comes up with the solution. Henceforth, baton rounds and baton charges will be issued not to the police, but to all the students instead. It works like this: students stand around in a large circle and each takes it in turn in getting beaten up, and then they are charged for it.
- **Useful dates: 25th – Say Whensday**
  26th – Stir Fryday
  28th – Palm Sun Day (Wapping)

APRIL

- Mastertronic change their name when they discover themselves to be an anagram of 'Oi, Smart Cretin'.
- Jeff MInter and Bonnie Langford are revealed to be the same person in a different wig.
- Due to the midwives strike, *Operation Wolf* can only be obtained from BUPA at full moon.
- The legal wrangles between Electronic Arts and CRL are finally settled, when Clem Chambers is granted custody of the creche.
- Telecom's new generation of mini cordless phones sells well to Yuppies, but then the market drops out of the bottom when vandals cannot break the habit of urinating in users' pockets.
- **Useful Dates: 1st – All Fools Day (11 Downing Street)**

MAY

With the abolition of the IBA, all new television receivers are fitted with a special preset knob marked 'Bias'.

- South Africa launches its first MIDI keyboard in competition against the Casio-EX7. Called the Castratio XE-Kute, it features a selection of pre-set floppy-disco rhythms like the Botha Nova, the blackbeat and goose-step, and there is a mains adaptor unit that can be clipped direct to genitalia. The chord sequencer is easy to use and very tight, especially round the neck, all the piano keys are white, and it is bundled with a disposable Biko to throw out of the nearest high window, as well as a free Nelson Mandela.
- **Useful Dates: 22nd – St Samantha's Day (Bristol City, stereo)**

JUNE

- With the discovery that the dictionary definition of 'digital computers' means 'fingers', Microdealer begins distributing a revolutionary range of peripherals, including thimbles, nail varnish, plectrums and woolly mittens.
- After his spectacular show trial in the States, Colonel Oliver North deserts to the People's Republic of Micronet 800 and logs on to *Shades*. Within a fortnight, *Pacman* does an arms deal with Mario's Cement Factory and Orcs invade Nicaragua. President Bush denies that he's ever been to Middle Earth.
- **Useful Dates: 21st – longest day (Sir Robin gets lucky)**

JULY

- Specialist computer theme package holidays are arranged by Club X88-30, including a visit to the ancient Italian ruins of Raffaele Cecco, the Spandau prison cell of Ashley Hilderbrandt and the software factory of Verspre (Hewson New Town).
- After exactly twelve months, Mirrorsoft finally pay Mel Croucher for designing a poster for *Fernandez Must Die*, thereby breaking the record for lousy payers hitherto held by East Midlands Allied press.
- Activision/Mediagenic announce that they have secured the European rights to *Who Framed Roger Rabbit*. All bidders were strung upside down from meat hooks while Bob Hoskins made his choice
- **Useful Dates: 4th – US Independence Day (Greenham Common)**
  9th – Canine Bank Holiday (Dogger Bank)

AUGUST

- Sony/Philips announce that interactive videos will be available by Christmas, based on CD-I, CDV, CD-ROM and CDX4 formats, those who don't die of boredom die laughing.
- Domark release a compilation of *Star Wars* and Jeffrey Archer titles called *Return of the £2,000*.
- Official circulation figures announced by *New Computer Express* confirm it as Britain's most popular computing weekly.
- Freelance computer journalists welcome the latest lap-top word processor. It consists of a small piglet, which you can feed old Guardian newspaper articles in one end, and it automatically produces a load of old crud from the other. So what's new?
- **Useful Dates: 12th – Grice Shooting Begins (Belfast).**
  13th – W H Smith Desperate Remainder Sale of crummy software
  30th – August Ban Collar Day (Canis Turdus)

SEPTEMBER

- At the PC show, Earls Court, the number of young ladies engaged to promote product proves that all major exhibitors have upgraded from 8-bint to 16-bint software. Many faces are slapped as visiting buyers innocently ask about spread sheets and stand alone software.
- The press seethes with rumours of a royal divorce, when they discover that Tim and Cheri Langdell have not seen one another since breakfast. Softek deny this, but are then accused of leaving Garfield at the palace in the care of a nanny, while they go on a royal visit to Australia.
- Scooby Doo is arrested for doing something quite disgusting to My Little Pony.
- **Useful Dates: 6th – Electricity Privatised**
  7th – Annual Stock Market Crash.

OCTOBER

- The ultimate conflict simulation is launched on all formats. It features a symbolic dividing line across which the superpowers of East and West launch guided missiles at one another and try to repel them using rapid reactions, power, and logic. It is called *Ping-Pong*.
- The latest celebrity endorsements include *Frank Bruno's English,*, *Way of the Exploding Robert Maxwell* and *David Owen of the Rovers*.
- Meanwhile back at the libel lawyers, the Konix dedicated games console achieves spectacular success in the fields of sports simulations. It is used as the ball.
- **Useful dates: 30th – Independence Day (Toshiba)**

NOVEMBER

- Winter fails to happen as the global ecosphere goes gaga and keeps on warming up. As predicted by top scientists, this is due to the continuing use of CFCs (Crummy Far-Eastern Computers). Users of these machines find themselves transformed into little old men in cloth caps and wellies, with a mission to eradicate greenfly from chrysanthemums and grow the biggest marrows. This, of course, is a result of the Greenhouse Effect.
- **Useful Dates: 1st – Military Coup Day (Toshiba)**
  9th – Le Beau Jolly Nouveau arrive (Christmas Is.)
  11th – Remembrance Day (Republic of Amnesia)
  21st – Doris Day (Virgin Islands)

DECEMBER

- Twelve months after last Christmas's best selling video *Watch With Mother*, Andy Pandy comes out of his closet, Bill and Ben smoke little Weed, Rag tag and Bobtail admit that they are Simon Harvey and the Woodentops continue to run Code Masters.
- So as not to break with seasonal tradition *New Computer Express* asks Mel Croucher to come up with 1,500 mildly amusing words within a two-day deadline. Like this year, he fails.
- Benny Hill is painlessly put to sleep by a lethal injection of talent, and thanksgiving services are held throughout the civilised world.
- **Useful Dates: 21st – Winter Solstace (Kingdom of Hypothermia)**
  24th – Crispness Eve (VDU clinic)
  31st – New Years Eve (Garden of Paradise)

Thunderblade

Operation Wolf

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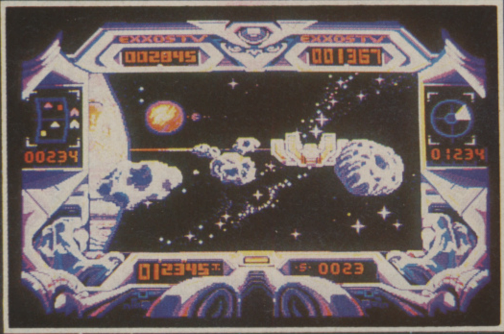
"THE DAY THEY COME TO CONQUER YOU, MY FRIEND!"

FOUR TESTS, FOUR ARCADE GAMES IN STUNNING 3D



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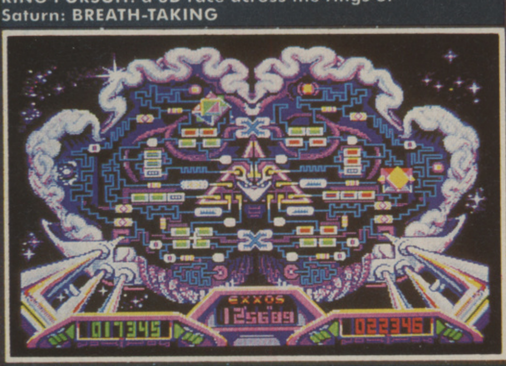

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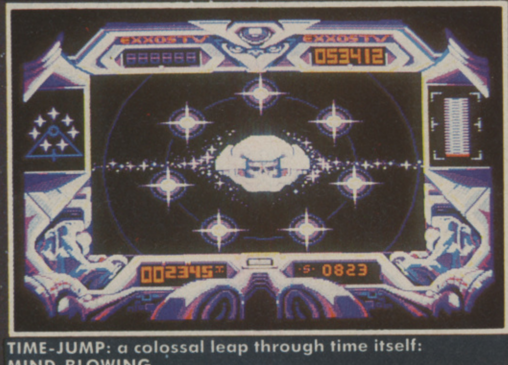

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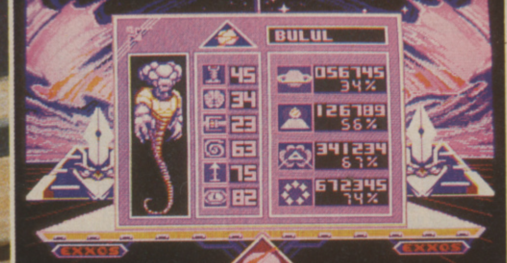

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Weird aliens. Not at all like us, my friend...

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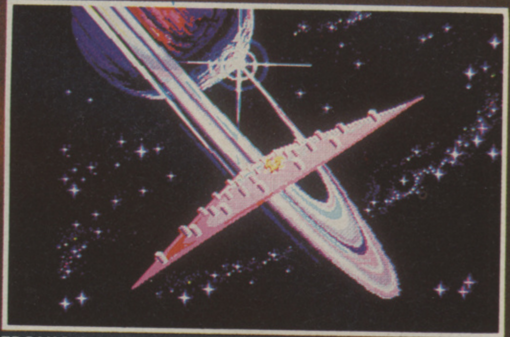
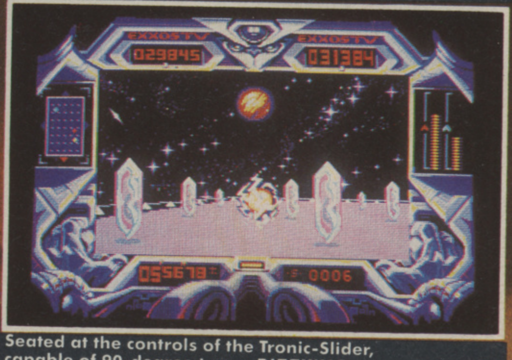


TRONIC-SLIDER: a frantic search for energy in an orbital arena...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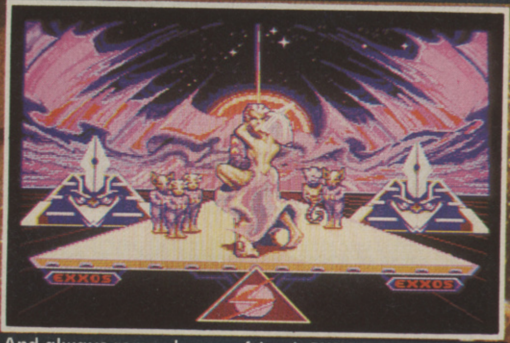
Seated at the controls of the Tronic-Slider, capable of 90-degree turns: DIZZYING...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And always remember, my friend: EXXOS IS GOOD FOR YOU!

EXXOS

ATA ATA HOGLO HULU....

Infogrames, Mitre House, Abbey Road, Enfield,
Middlesex, EN1 2RQ

Super soar

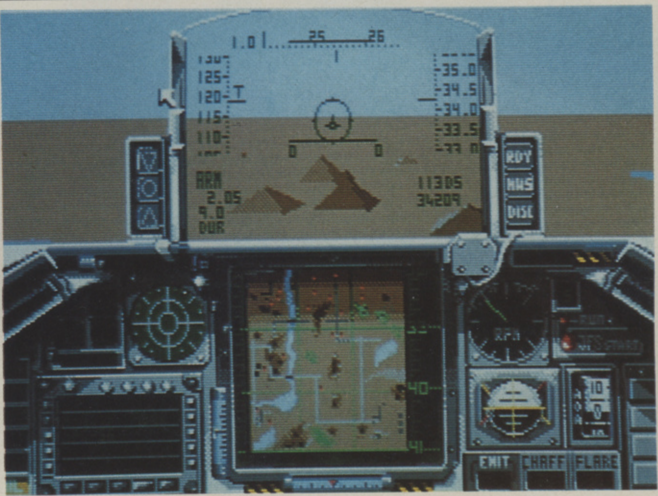
This week Express brings you two of the latest – and best – in flight s

FALCON

SPECTRUM HOLOBYTE

ST • £24.99dk
Also on PC, PC EGA, Mac
Due out on Amiga

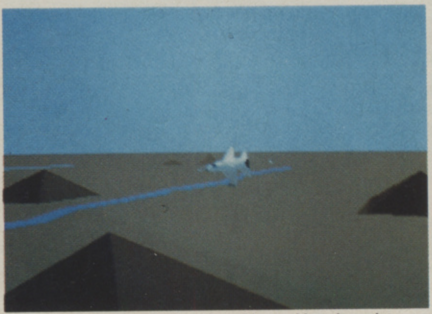
Although there are F-16 simulations by Sub-Logic, Intellisoft and Digital Integration either already out or planned, this one has scooped most awards and is the first to have been converted into an Avionics Situational Awareness Trainer for the US Air Force. With 10 man-years programming behind it and a 150-page manual we're not talking flights of fancy here.



• The on-board navigational map won't allow you to lose your bearings

● GAMEPLAY

Learning to fly an F-16 is a task *Falcon* facilitates by grading difficulty according to one of five military ranks ranging from First Lieutenant to Colonel. As you progress up the ranks, the degree of realism improves – there are more flight control features and the number and nature of adversaries increases. This is an essential feature since the sheer number of options, controls and required skills takes quite a toll on your concentration.



• Your F-16 from one of the zoomable tracking viewpoints

Fortunately, there are a number of ways of improving your flight skill. At any rank you can flip to demo mode, hit a key for a external view and watch your F16 continue combat on auto. There's also a black-box feature that allows you to review instant replays of manoeuvres at any point too. Combine these with options to practise formation flying as a Wingman and you're up, up and away. How long you'll stay up there is another question entirely.

No sim worth its salt fails to include combat missions and here there are 12 on hand. All comprise varying combinations of fast action combat involving optional numbers of MiGs and Surface to Air Missiles in air-to-air and ground strike scenarios where you may choose from a range of available weaponry.

Complete a mission successfully and you're awarded decorations and medals and proceed to a higher rank. But consider how you're meant to evade a SAM. Although it's best to practise flying fast and low with the radar off to evade the enemy, sooner or later you'll come across a SAM that has designs on you and then...well...you flip over and head directly for the ground at max speed while releasing chaff. Just before you hit the deck you kick in the afterburner and start a steep climb. The SAM just can't cope with the manoeuvre. Neither could we. *Falcon* will keep you busy for longer than the average pilot's lifetime.

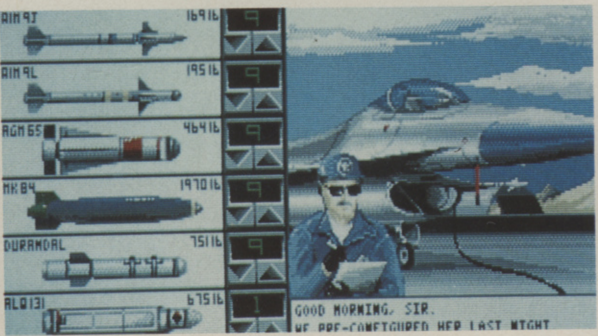
Control is by mouse, joystick or keyboard, and sensitivity is software controlled – so in the training levels you can customise your own F-16! Throw in a comms link for simultaneous two-machine play and you have a real serious simulator that's completely engrossing.

● GRAPHICS AND SOUND

Falcon's graphics are first class. You get the impression the solid vector landscape and objects have been smoothed over, since there's no hard-edged stepping on diagonal lines and filled colour is steady even in the most vicious high-g turns. As you'd expect, there's a wealth of detailed instrumentation and several HUD displays showing airspeed, heading, gravity, altitude, flight ladder and aiming reticle. Below the cockpit view is your main bank of indicators, the most prominent being the combined map and radar display which monitors situation and relative position of targets.

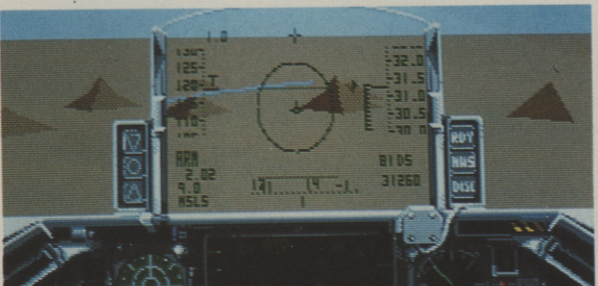
There are also a number of viewpoints instantly available. You'll need to hit a key for a left view to see your compass, yaw, pitch and fuel settings and the right view for additional instrumentation status. There's also a rear view for when that adversary zooms past at Mach 2. But there's a great 'satellite' view of your progress too, a view from the airbase tower of your whereabouts and, most useful of all, a view deemed to emanate from a tracking plane. This is zoomable, rotatable and priceless when it comes to working out where off earth you are.

Sound is impressive too. Engine and afterburner effects are, we imagine, quite authentic – as are air-traffic control and on-board computer voices. True to the real thing, the latter is female.



GOOD MORNING, SIR.
WE PRE-CONFIGURED HER LAST NIGHT

• Just about to stock up on a range of heavy-duty toys



• Armed and on the lookout for marauding MiGs

5
GAME

● OTHER VERSIONS

Falcon's been out on the PC and Mac for some time now, and both versions make full use of their respective machines' capabilities. But the ST version is streets ahead in terms of slick graphical excellence. No clues as to the Amiga outing as yet...

● EXPRESS VERDICT

A feature packed tour-de-force of flight sims, *Falcon* positively streaks ahead of other ST competition. By combining attention to detail with gripping gameplay, *Falcon* offers a degree of authenticity that is about as close to the state of the art as you're likely to get on any machine other than custom military hardware.

✪ ✪ ✪ ✪ ✪

Andy Storer

raway sims

t sims. PLUS the tastiest in seasonal fare to tide you over Christmas...

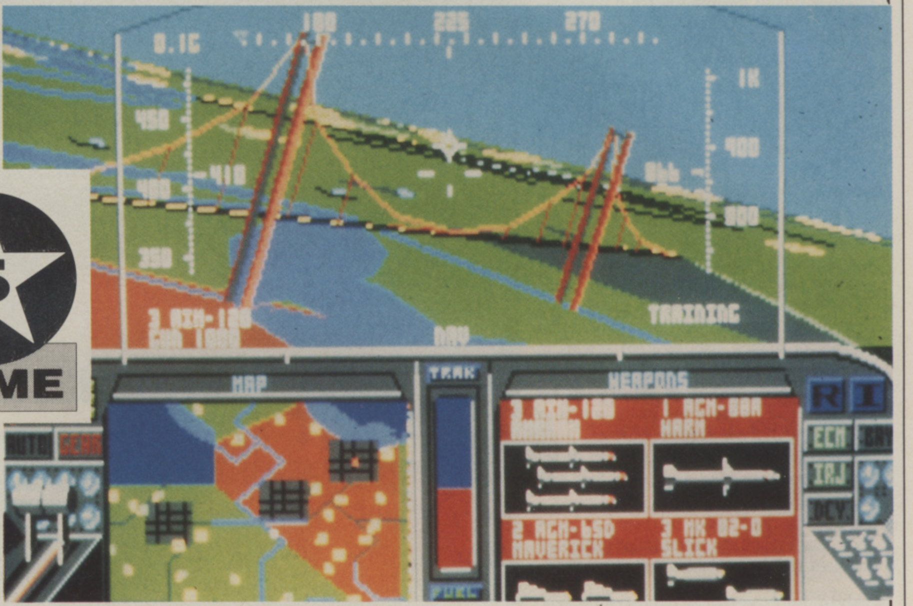
F-19 STEALTH FIGHTER

MICROPROSE

PC • £39.95dk
ST and Amiga versions due January
Spectrum and CPC versions due February

5
GAME

Microprose's follow up to *Gunship* proves a worthy opponent for Microsoft's *Flight Simulator* and Mirrorsoft's *Falcon AT* in the top quality PC flight simulator stakes – particularly on a high-speed AT with VGA graphics.



• Impressive ground detail just waiting to be strafed into oblivion

● GAMEPLAY

The F-19 is at first sight an odd plane to choose for a flight simulator, as its specification is supposed to be top secret. But Microprose's *F-19*, however close it may turn out to be to the real thing, does prove to be rather more interesting to fly than most high performance jet fighters.

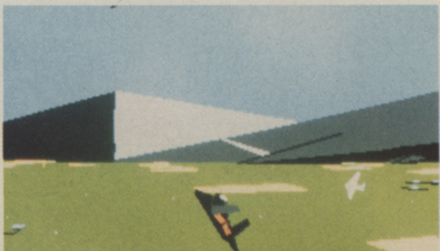
This is largely because its performance has been cut by whatever it takes to maintain a low radar profile – 'stealth' in other words. It is simply not as fast or as powerful as an F15 or F16, for example, and – making a big change for Microprose flight simulators – frequently can't match the speed of its opponents.

This all makes for a more challenging flight, though, particularly with the added variable of stealth. You may not be able to match them for speed, but keep your head down and an eye on the EMV meter (Electro-Magnetic Visibility) and you can simply disappear off their screens and back to safety.

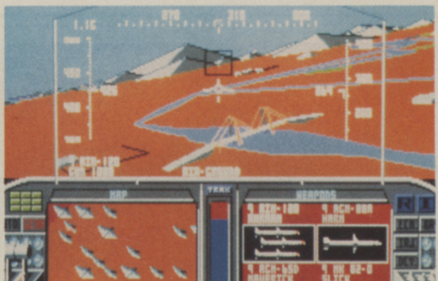
Your control panel is fairly standard, although highly complex, and the supplied keyboard overlay is a real blessing. Your HUD (Head Up Display) shows speed, height and a variety of targets, depending on whether you are in Navigation, Air-to-Air or Air-to-Surface mode. Below are two CRTs (Cathode Ray Tube – a rather old-fashioned term for monitor), each of which can be switched to a variety of modes. The most useful is Tracking Camera, which provides a close-up visual of whatever target you are locked into. Unlike most planes, there is no radar system – it would rather negate the point after all. Instead, you rely on highly detailed satellite maps of the surrounding area for both navigation and tracking of other potential targets.

'Wild' Bill Stealey, President of Microprose and a former USAF fighter pilot, has never been one to hide his political viewpoint under a bushel. Rather than battle over an imaginary border zone, *F-19* provides a variety of missions over the sensitive landscapes of Libya, Iran, Central Europe and The North Cape. Each of these can be flown in 'Cold War' (where stealth is vital), 'Limited War' or 'Conventional War' – the nuclear option is conveniently not relevant and so not mentioned.

Your missions do take note of the political situation, so you are frequently asked to photograph a critical target or drop supplies at hidden landing strips; and are severely reprimanded for strafing a native village, for example. There is no getting away from the morality of it all, but what makes *F-19* an improvement over earlier Microprose simulators is that, at the more difficult levels at least, the enemy is a worthy opponent.



• A Tactical View of your F-19 – just one of the several available



• Searching for a hidden landing strip in them there hills

● GRAPHICS AND SOUND

The sound can be dismissed almost immediately. The PC has rudimentary sound capabilities which are best turned off. *F-19* mercifully provides the option.

However, on a full VGA display and a machine with a good turn of speed (a fast AT or 386 model), the graphics are stunning – and well up to Amiga or ST standard. The ground is full of detail with bridges, oil rigs, cities full of skyscrapers, SAM radar sites, ships and airports all picked out in glorious colour.

In particular, *F-19* offers several innovative out-of-cockpit views. In addition to rear, left and right you can also choose Tactical View, which puts you behind the F-19 looking at the target; Inverse Tactical View, which shows the F-19 as it would appear from the target; and Missile View, which puts you in the nose of the missile as it seeks its nemesis. As targets are drawn in some detail and explode in a particularly spectacular way; this last can be quite exhilarating.

Great if you've got a £3,000 high speed AT, but Microprose has thought about the rest of us too. *F-19* can be switched into three 'detail' modes, so if flight is a bit stilted you can always choose to have less surface detail for a bit more speed. CGA, EGA, MCGA, Hercules and Tandy 1000 graphic systems are supported as well as VGA.

● EXPRESS VERDICT

F-19 Stealth Fighter certainly puts Microprose back on the map as high-performance flight simulators go, although it does not have all the attention to detail of *Flight Simulator 3* – all the runways run north-south, for example, and you do not have to contend with weather conditions. It is competent on a PC with CGA graphics, but if that is all you've got don't try it on a 386 with VGA display – you wouldn't be able to look your machine straight in the face ever again.

✪✪✪✪✪

Matt Nicholson

ROBOCOP

5
GAME

OCEAN

C64 • £9.95cs, £14.95dk
Also on Spectrum, CPC
Out soon on MSX
Out around Easter '89 on ST, Amiga, PC

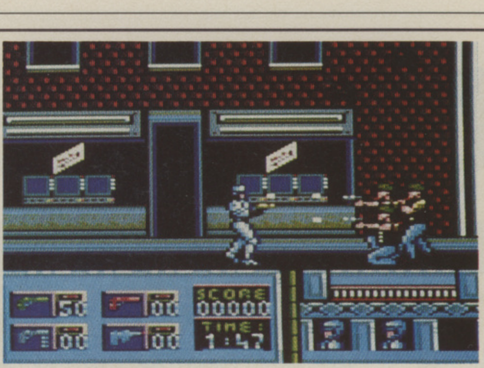
Hot on the heels of the movie's recent release on video comes *Robocop* the computer game. But will it be just as dire as most of the other licensed games before it...?

● GAMEPLAY

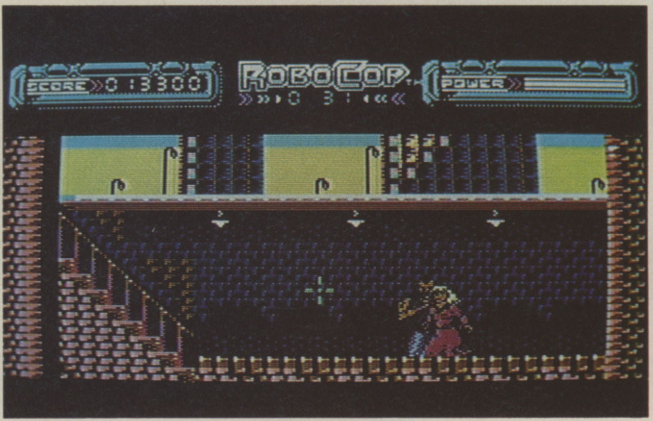
Guess who you play. Give up? Yeah, that's right you're *Robocop* – half man, half machine – all that remains of officer Murphy, viciously gunned down by a gang of thugs. You're the 32nd cop to be murdered in near-future Detroit since Security Concepts Inc. (OCP) started to run the police force. Revenge is the name of the game as you set out to find the person responsible for the new wave of crime. But that person may be nearer home than you think...

During play you progress through nine levels which consist of different games with either a straight shoot-em-up favour like the coin-op, or games inspired from scenes in the movie. All involve your efforts to wipe out the criminal element in the city, armed only with your police issue pistol and your own selection of personal peripherals.

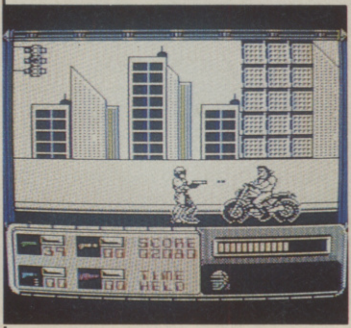
Level One places you on patrol in downtown Detroit, shooting any crims that pop up. Level Two involves you in a hostage situation – only don't shoot the hostage! Level Three places you on patrol again, although this time the opposition's even more plentiful and aggressive. Level Four gives you the opportunity to scan the photofit files searching for the one who shot the original Murphy. Level Five situates you in the gang's hideout, a drug factory, and you must arrest the leader of the gang and take him back to headquarters. Level Six forces you to fight Robot ED209 with bare fists. Level Seven sees you escaping headquarters via the lifts. Once outside, Level Eight situates you in a chase sequence, running away from more gang members. Finally, Level Nine is another hostage situation, only this time the hostage is Mr President. Watch who you shoot, or your bid for promotion just might be a little premature.



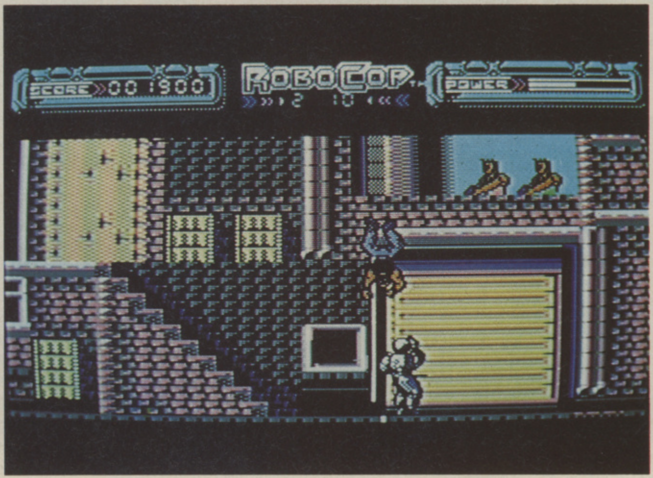
• A shot of the CPC version



• Stage 2. Be careful not to shoot the hostage (C64)



• Robocop on the Spectrum



• Another crim bites the dust in Stage 1 (C64)

● GRAPHICS AND SOUND

Robocop contains excellent audio-visuals throughout. The backdrops are detailed and atmospheric, with nicely designed and animated sprites. One of the best visual aspects is your onscreen character, who is realistic and bears a striking resemblance to the real thing.

Audio can be either competent sound-effects or a pounding dancetrack complete with sampled instruments. You even get a sampled "Robocop" screaming at you when you start each game.

● OTHER VERSIONS

Spectrum *Robocop* is equally good, with a well-implemented monochrome display and reasonable sound-effects (even better on a 128k machine). No details on the other versions yet, but we can't wait to get our hands on them if they're as good as the C64 version.

● EXPRESS VERDICT

Unlike many licensed games, *Robocop* actually offers an good mixture of game types backed up by Ocean's usual high standards in audio-visual quality. This all combines to make an exciting and entertaining release.

Robocop's nine levels offer addictive and varied gameplay. It's got just the right level of difficulty, a feature not found very often. Each of the nine levels is playable, and its layout coherent. Finally, they all connect tightly together to produce one of the most playable and enjoyable licensed games to date.

Easily superior to the other major contenders tipped for Christmas number one, *Robocop* is an excellent purchase and a worthy tie-in to the brilliant movie.

✪ ✪ ✪ ✪ ✪ **Rik Haynes**

LAST DUEL

US GOLD/CAPCOM

ST • £19.99dk
Out soon on Spec, C64, CPC, Amiga, PC

***Last Duel* is the latest Capcom coin-op converted to home micro format by US Gold. It's a vertically-scrolling shoot-em-up promising great audio-visuals and hopefully packing a punch in gameplay.**

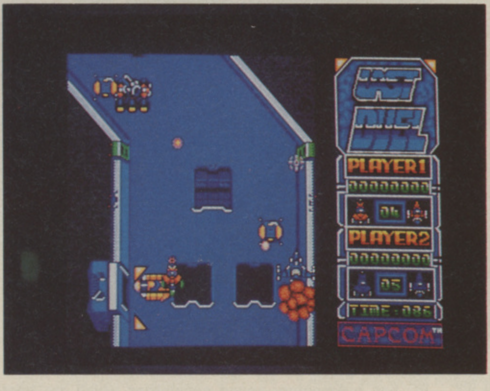
● GAMEPLAY

Your mission is to rescue planet MU's princess Sheeta from the invaders from Bacula – MU's twin planet.

Playing in either single or simultaneous dual-player mode, you have to battle through six levels of shooting slaughter, fighting against fire-breathing dragons, metallic spiders and skeletal dinosaurs, to name but a few.

Luckily, you'll find pickup pods along the way to improve your firepower, and as you progress through the game you control different types of craft such as a three-wheeled car, hover-plane and a space-plane.

In-game action consists of travelling through a restricted corridor, avoiding traps, gun emplacements and alien craft before the confrontation with one of the aforementioned end-of-level baddies.



• What a choice – hit the wall or go down the hole!

● GRAPHICS AND SOUND

Visuals are striking, with well designed and animated sprites and pretty backdrops. The scrolling is up to scratch and even includes a nice touch to scroll sideways, depending on whether you want to avoid/pick up something.

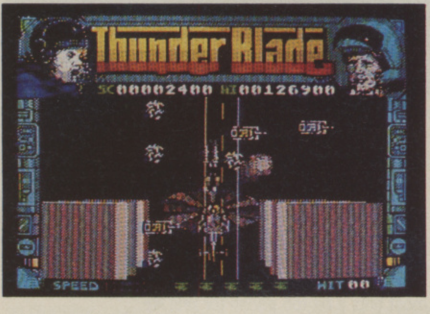
Audio comprises the usual assortment of func-

THUNDER BLADE

US GOLD

Amiga • £24.99dk
Also on Spectrum, C64, CPC, ST
(Also on Sega Console – not from US Gold)

US Gold's contender for Christmas Number One is *Thunder Blade*, another coin-op conversion from that old arcade master Sega. But the strange thing about this arcade game, though, is its lack of a truly amazing hydraulic cabinet. So perhaps there's gameplay involved in *Thunder Blade* as well?



• Spectrum Thunderblade

● VERSION UPDATE

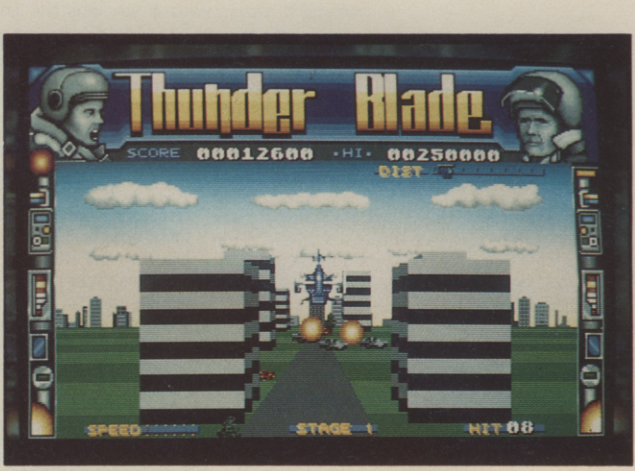
Not quite an open sky for you and your advanced helicopter 'cos you're gonna have to blast through the overwhelming opposition of an evil dictator called General Swindells, in an ongoing saga of wanton destruction.

In this four-stage game you'll have to fly through skyscraper city, mountains and deserts, delta river and finally the refinery, battling against a plethora of flak-shooting ground and air forces ranging from Bengal Tiger Tanks to Sparrow Hawk Attack Helicopters. All waiting to take you out.

Luckily, you're armed with rapid-fire chain cannon and slightly-slower air to ground missiles (both in unlimited supplies) and you control a highly manoeuvrable helicopter.

During play you alternate between overhead and straight-on viewpoints, which greatly enhances interest and visual variety.

Audio-visuals are impressive with colourful, well defined and speedily animated sprites and backdrops complemented by crisp and clear sampled sound effects and an up-beat soundtrack on the title page.

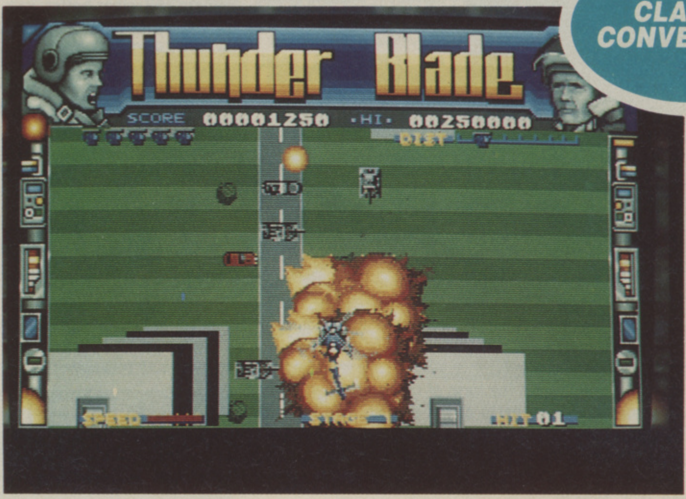


• Flying down downtown skyscraper city

● OTHER VERSIONS

While ST *Thunder Blade* almost matches the Amiga version visually, it's let down by relatively slow speed, muffled audio and chronic control response. **Verdict:** A probable case for try before you buy.

Spectrum *TB* gives a good account for itself, with a nicely interpreted monochrome display and reasonable sound-effects – but barely tolerable soundtrack. The only trouble is the sharp variation in speed as you progress through the game. **Verdict:** Worth checking out.



• You bite the dust in a multicoloured maelstrom of mechanical mayhem (*Your P45's in the post – Ed*)

CLASSY CONVERSION

C64 *TB* has many little differences to the other versions, probably because it was written by Chris Butler (the rest were written by Tiertex). It has a different soundtrack on the title page (there's an option to hear the proper soundtrack during play) and has three lives per game instead of five (probably because the C64 version is the easiest to play). Visuals are blocky but fast, with audio up to a fair standard. Verdict: Perhaps a little light on the difficulty side, but still a credible conversion.

Far less impressive is CPC *TB*, which is a little redeemed by its colourful display but has very crude sprites and backgrounds and moves like a tortoise on a work to rule. This is perfectly matched by rather irritating sound-effects and a poor quality soundtrack. **Verdict:** A definite case for try before you buy.

● EXPRESS VERDICT

Amiga *Thunder Blade* is easily the best out of the bunch of home micro conversions. Hardly surprising, we know, but some companies just don't bother to use the advanced features of the Amiga, so praise is due to those who do.

The Amiga version tears along at a hectic pace, and is backed up by first-rate audio-visuals and fast and furious gameplay. It all adds up to a very accurate representation of the coin-op parent.

Thunder Blade is the type of release that's great for a game of mindless blasting, and when treated as such is fine, but don't expect it to deliver much in the lasting-interest stakes.

✪✪✪✪

Rik Haynes

---

tionary spot sound-effects marred by a truly irritating jingle at the beginning of each game.

● OTHER VERSIONS

The Spectrum version has some very nice (monochrome) graphics and scrolls along at a steady pace. Which is more than can be said for the CPC version. It's far too slow and lacks audio quality. Although it does have a colourful and well drawn display – most of the time.

We haven't played the other versions yet.

● EXPRESS VERDICT

The versions we've seen (ST, Spectrum and CPC) have very pleasing visuals. The trouble is that the games aren't that playable, due to sluggish control response (*Not exactly the best feature to find in a shoot-em-up – Ed*), making *Last Duel* one of those games that it's best to try before you buy.

✪✪✪

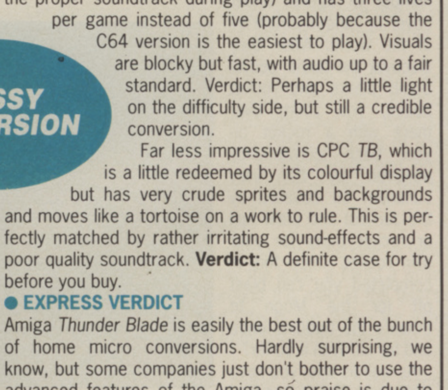
Rik Haynes

BAAL

PSYCLAPSE

ST • £19.95dk
Out soon on Amiga
C64 version under development

Psyclapse's *Baal* involves you in an exploration of a mysterious and uncharted world known only as Baal's Lair, in a bid to stop the aforementioned Baal and his cronies from taking over the world and making it a living hell – what do you mean it is already?



• You're dazzled by demonic devil

ROCKET RANGER

MIRRORSOFT

PC • £24.95dk
Also on C64, Amiga

Superman's a sup, Spiderman's a spidooza – give me the one and only, leather-trousered, cast-iron crowned hero of the forties. *Rocket Ranger* takes to the air to fight off the fiendish Nazi scourge in the latest Cinemaware release from Mirrorsoft. Break out a spare can of Buddy and pep up your PC for this one.

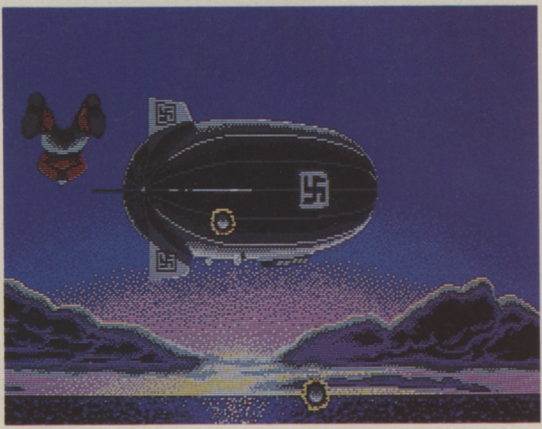
● GAMEPLAY

How's this for a fun scenario?: The Nazis have discovered the ultimate fuel, Lunarium, for making bombs and powering rockets. If they can only bring enough of it down from the Moon (where else?) they will finally conquer the world after all. Fortunately, beings from the future have supplied you with a Himmelwurfer rocket pack, Schmeisser radium pistol, Telefunken wrist monitor and a secret decoder wheel. Guess who makes this lot? Why, the Nazis of course. Your task is to foil the Germans' plans, change history and presumably consign your goodies to the ranks of never having been invented.

Temporal tautologies apart, you can make use of a number of agents under cover in various countries of the world. When they discover the Nazis' secret bomb plants and rocket bases, you zoom over there with a rocket on your back (conveniently powered by the very Lunarium so coveted by the Jerries) and steal fuel or rocket parts for your own rocket. Once this is completed you can blast off for the Moon to trounce the baddies once and for all. With it so far?

As well as this, you have to try and rescue one Prof Otto Barnstorff and his busty daughter Jane, who have been kidnapped from Washington in a giant Zeppelin (yes, I know he has a German name too, but he must have been an early immigrant).

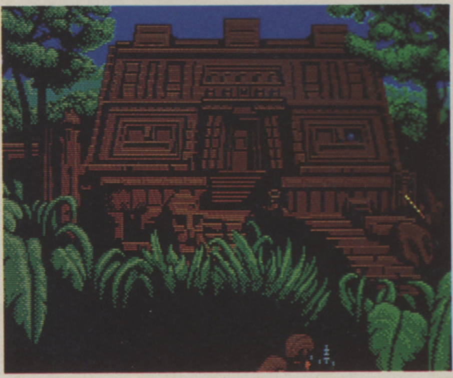
There are two elements to the game: strategy and shoot-em-up. The placing of your agents and the success they have in discovering bases and organising resistance ensures you of a supply of stolen Lunarium and stops you rocketing off to the wrong places. This is controlled from the War room of Fort Dix, and only from there, since the US Army hasn't thought to give RR a radio (why do you think they come from Fort Dix?). This is the strategy part.



• Sailing off into a spectacular sunset (graphics card permitting)

The arcade sequences involve shooting at the gondola of the Zeppelin without hitting the gasbag (no, not Otto Barnstorff), fighting off the ME 109s when approaching a Nazi base, fighting off storm troopers when trying to steal rocket parts or fuel and fighting off the female Zombie warriors if you ever get to the Moon. There really is a lot of fighting off to be done.

The third part of the action (I lied, I must be a Nazi) is trying to persuade Jane and her father that you are a goody and not a member of the Gestapo, and so swing them both to the side of the brave and free. This you do by selecting the correct multiple-choice responses in a simulated conversation.



• Aztec ruin or Nazi stronghold? You'll soon find out...

● GRAPHICS AND SOUND

Unfortunately, the limits of the PC really show. The poor thing was never designed for graphic games and has yet to forgive the affrontery of hosting leisure software. In CGA the colours look suitably silly, though the graphics themselves are clear enough. EGA improves things a bit, and the text panels look authentically in period. Animation is OK and RR's movement is reasonably well handled. Explosions have a certain ring to them, well lots actually, spreading out from the centre, but the limited colour palette makes most tints a bit too garish for real life.

Music is the melody line from the three-part rendition of other versions, and is little more than a joke. Spot effects are rather better, with a particularly good crash as you try for the fifteenth time to get RR into the air.

VARIED GAMEPLAY

● OTHER VERSIONS

An exceedingly good Amiga version is already available, as is a C64 one.

● EXPRESS VERDICT

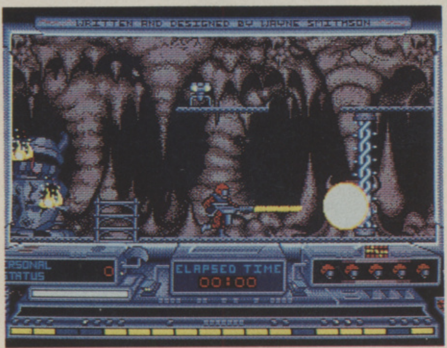
Anyone who remembers the hero of Saturday mornings at the Odeon is really much too old to play this one. Anyone else will find it great fun, though, and good value for its clever mix of strategy and shoot-em-up. Within the limits of the PC, a worthy successor to *Defender of the Crown.*

✪✪✪✪

Simon Williams

● GAMEPLAY

Taking on the guise of a Time Warrior armed with a laser gun straight out of the film *Aliens*, you'll have to probe the inner depths of Baal's mysterious domain.



• You've just destroyed a generator and you're itching for action

Along the way you'll encounter all sorts of hideous, enzyme-spitting creatures that inhabit Baal's dark land, while continually staying alert for all sorts of life-endangering traps such as energy force-fields, mines and hazardous platform-edges.

Luckily, your on-screen counterpart can load up improved firepower in the form of collectable cartridges, transport to various parts of the domain, and a limited shield.

Psyclapse has provided a (restricted) load/save facility which will stop your quest from becoming *too* frustrating. Well, almost!

● GRAPHICS AND SOUND

Audio-visuals are up to the usual high standard set by Psygnosis. Visuals comprise nicely designed and well-animated sprites, great backdrops, and wonderfully drawn and coloured-in screens. In fact the visuals are a strange (but workable) blend of sci-fi and Gothic influences, which help to generate an eerie atmosphere. The slightly jerky scrolling is the only inadequate graphical aspect.

Audio consists of the usual selection of practical spot sound-effects for explosions, laser fire, etc. Complemented by a very quiet – but original and lengthy – soundtrack on the title page.

● OTHER VERSIONS

No other details are available at present.

● EXPRESS VERDICT

Baal is one of those games which creates a compulsive desire to negotiate the next trap or hideous creature (a very rare feature these days!). The good quality audio-visuals and compelling gameplay help make *Baal* a great purchase for any aspiring explorer.

✪✪✪✪

Rik Haynes

HYPERDOME

EXOCET

ST • £19.95dk
Out soon on Amiga

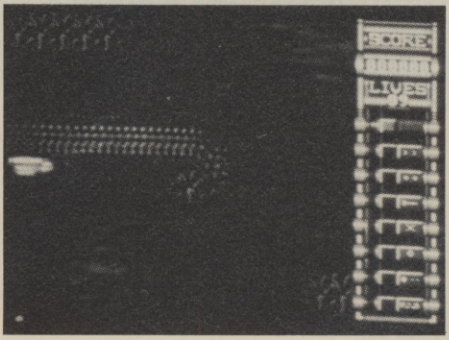
Exocet's latest offering moves away from the style of *Phantasm*, its last release, and back to the style of *Foundation's Waste*, its first. Has it learned any lessons along the way?

● GAMEPLAY

There you are, sat at the controls of a Federation Fighter, having got five years of training under your belt, and now you're expected to enter the final test – the Hyperdome, where it's survive or die time.

It's actually shoot-everything-in-sight-time in this viewed side-on, horizontally scrolling shoot-em-up. There are airborne aliens that can come at you from every part of the screen to contend with as well as ground targets that take pot shots at you. What you need then are extra weapons!

Shooting a ground target results in a small white token



• Smooth, colourful and tough. Just another scroller/shooter though

being left behind. Collect the token, and you're on the way to gaining an extra weapon. Like Audiogenic's *Breakout* clone *Impact*, the more tokens you collect the meatier your extra weapon will be, so you get to decide when to trade the tokens in for more firepower. There's quite a spread of things to choose from too, including homing missiles, drones and shields.

From Level One onwards life gets tougher, though. Moving lifts have to be negotiated as you fly through the continually-scrolling game, and should you pick the wrong way round an obstacle you can find yourself running into a dead-end.

● GRAPHICS AND SOUND

The backgrounds are great, they're colourful, and they scroll smoothly. The sprites are run-of-the-mill, though, and the sound effects are hardly anything to write home about.

● EXPRESS VERDICT

Like all shoot-em-ups, it's not original stuff. The addition of moving lifts etc on the later levels makes a harder-than-average shoot-em-up even tougher, so you'll keep on plugging away at it. But it's not as classy or as enjoyable as, say, *R-Type*.

✪ ✪

Andy Smith

THE MUNSTERS

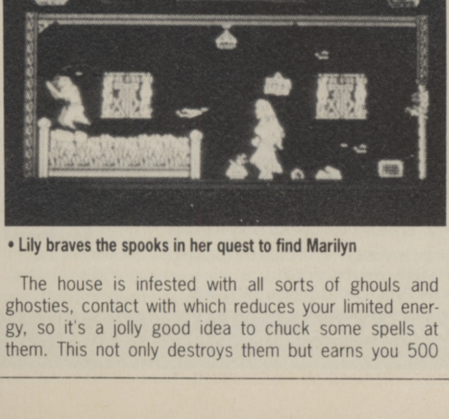
AGAIN AGAIN

Spectrum • £9.99cs
Also out on CPC, C64, MSX
Out soon on ST, Amiga

New software house Again Again launches itself into the market with a game based on a hit TV show. Is this a wise move – remember Macsen with *Bullseye* and *Block Busters*?

● GAMEPLAY

Old Nick (the varmint!) has nabbed Marilyn, the only normal member of the family, and it's down to you to rescue her. You control Lily (Herman's wife) and have to wander around the Munster household collecting objects.



• Lily braves the spooks in her quest to find Marilyn

The house is infested with all sorts of ghouls and ghosties, contact with which reduces your limited energy, so it's a jolly good idea to chuck some spells at them. This not only destroys them but earns you 500 points and increases your spell power level. This needs constant topping up because some of the nasties can't be destroyed unless your spell bottle's almost full. The amount of spell power and energy Lily has is represented by two bottles in the top of the screen.

It won't take you long to realise that some of the ghosties in the rooms simply can't be defeated by spells alone, no matter how full your bottle is. To destroy these you have to collect certain objects. And that's essentially the key to the game – by trial and error you discover which objects you need to destroy which nasties, and so progress in the game.

● GRAPHICS AND SOUND

The sprites are well-animated and colourful, and the backgrounds – although a little empty – are well drawn. Sound is much as you'd expect from a Spectrum, but the 128k version of the TV theme tune is pleasant enough and the spot effects are well done.

● EXPRESS VERDICT

Again Again has done a nice job of capturing the feel of the cult series, and the game has some very nice touches. It hits just the right level between frustration and addiction, and the *Pyjamarama* fans of this world will probably get a lot of enjoyment from it even though it's not state-of-the-art as far as game concepts go.

✪ ✪

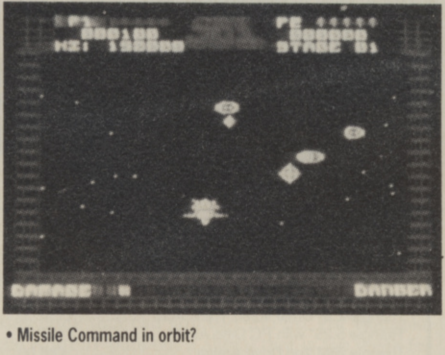
Andy Smith

SDI

ACTIVISION

Spectrum • £9.99cs
Also out on C64, CPC, ST

***SDI* is a conversion of a not quite successful coin-op from Sega, the arcade manufacturer also responsible for such arcade hits as *Space Harrier*, *Out Run* and *Afterburner*. So is there something wrong with *SDI*?**



• Missile Command in orbit?

● GAMEPLAY

SDI (Strategic Defence Initiative) places you at the helm of a mobile satellite armed with a weapon capable of clouds of nuclear destruction, assigned to protect space from enemy forces.

During play you control the satellite and an aiming cursor (switching control from one to the other) blasting and avoiding a multitude of enemy missiles and satellites in this horizontally-scrolling shoot-em-up. If you miss any enemy objects you'll be thrown into a defensive round, where you defend your stationary base against a missile attack.

Both the offensive and defensive stages are very reminiscent of that old arcade favourite *Missile Command*, the latter even more so because it doesn't scroll.

● GRAPHICS AND SOUND

Audio-visuals are barely adequate. The backdrops have been dropped completely, to be replaced with a simple starfield. Although the sprites are passable in design, their animation leaves a lot to be desired.

Audio consists of limited and awful sound-effects and a terrible translation of the Bonus Round jingle.

● OTHER VERSIONS

ST *SDI* gets a star rating of three because it's a closer representation of the coin-op parent, complete with acceptable backdrops and accomplished sound spot-effects. But it still suffers from the too-easy syndrome.

● EXPRESS VERDICT

Spectrum *SDI* is less than inspiring, due to its rather limited adaption of the coin-op in the audio-visual departments and lack of varied action.

All versions suffer from a being too easy to play; the Spectrum version managed to get through to offensive half two without any interaction from us. In fact, it even scored a perfect bonus for destroying the complete wave of satellites!

✪ ✪

Rik Haynes

OPERATION HORMUZ

AGAIN AGAIN

Spectrum • £9.99cs
Also on CPC, C64
Out soon on ST, Amiga, PC

New software house Again Again chooses a topical subject for its first original title. Some would say basing a game around bombing enemy missile bases in the Persian Gulf is a tad tasteless – would you?

● GAMEPLAY

You're flying a McDonnell Douglas VTOL ground attack jet (similar to a Harrier) launched from a carrier in the middle of the Gulf, and there are seven enemy bases to bomb. You can't just go barrelling in, though, because the skies are swarming with MiG 21s trying to send you to Davy Jones's Locker. Then there are the Exocet missiles aimed at your carrier which have to be destroyed. Let a missiles strike the carrier and you lose one of your three aircraft – lose all your aircraft and the carrier will be sunk, forcing you to restart.

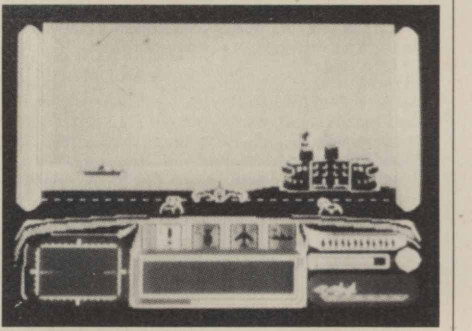
Fortunately, you're armed to the teeth. Use your air-air or air-ship missiles or even your front-firing cannons to take out the Exocets and MiGs, and save your bombs for the missile silos in the enemy bases. Run out of ammo and you can always return to the carrier and re-arm before going after the next bunch of silos in the next base.

● GRAPHICS AND SOUND

The graphics are nothing special, and the side-on view of your plane is curious to say the least; it takes a while to get your plane moving around the map in the direction you want it to go. Sound effects are dire – we expect more than squeaks even from Spectrums these days.

● OTHER VERSIONS

The C64 has substantially better sound and the graphics are smoother. No improvement on the gameplay front, though. The CPC version is by far the most colourful and has the best sound effects, but again the gameplay's poor so you won't be playing it for long.



• All at sea in the Straits of Hormuz

● EXPRESS VERDICT

This is no flight sim. The planes move and fire unrealistically, leaving you with a simple scrolling shoot-em-up that's not much fun to play. Take a look at something like *ATF* from Digital Integration if you want a shoot-em-up with a flight-sim flavour.

Or take a look at almost anything else if you just want a shoot- em-up. For Again Again the only way can be up.

✪

Andy Smith

THE BEST REASON FOR BUYING AN ATARI

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OTHERS CALL THEIR POOLS PROGRAMS ULTIMATE, WE CALL OURS "THE" POOLS PROGRAM.

There were and still are a couple of pools programs for the Atari ST that guarantee to you performance better than chance (?) or promise to you power? to forecast the pools the way you want. Others are asking you for disk for free demos while weeks are going by and you are missing your chance for a dividend. Nevertheless **pools-system** still remains the only one in the market that delivers the goods. Lets have a look at some facts. **Fact** user friendly and still the only one that does not require you to be some kind of a football expert or hot shot system analyser. **Fact** pools systems is the only one that performed even slightly during the difficult & unpredictable Australian season. **Fact 13/8/88**. 4 aways out of the recommended first 6. 10 homes out of the recommended first 15. **20/8/88** Start of the English season, the system trapped 9 out of the 14 score draws & all 4 no score draws. **27/8/88** 9 out of the 12 score draws & 3 out of 6 no score draws. 4 homes out of the recommended first 6. **3/9/88,** 6 homes out of the recommended first 7, 4 aways out of the recommended 6. 5 out of the 7 score draws & 2 out of the 3 no score draws. 40 correct results out of the 58 possible. **Fact**, all forecasted printouts available at any time for any checks. So do not waste your time with any other programs or systems. They are not going to entertain your hopes or wishes. And to top all the facts, we guarantee the **Pools-System** performs better than any other pools program in the market on any computer, because we **guarantee** to you that using the **Poolsbuster in cooperation with Poolsplanner you are going to win the pools more than once a year.**

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☆☆ Pools system (Poolsbusters & Poolsplanner) cost £40.00 inclusive. ☆☆

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Drivi#g yΩur pri*ter

OK, you've got your printer hitched up to your micro – but it doesn't work! Peter Worlock peers into the murky world of Escape Codes, and explains why printers have to be driven into working...

If buying a printer can be difficult (see last week's episode) using one can be a nightmare. The cause of the problem is a straightforward case of too many cooks: there are about a dozen basic models of computer; there are hundreds of different printers; there are thousands of different software packages.

When you need one to talk to the other, you've got your basic Tower of Babel situation.

Make those connections

The first hurdle to overcome is making the physical connection between the computer and the printer. In theory this ought to be simple with only two possibilities – serial or parallel. In practice, it's far more complex than that.

The most difficult are those computers – like the Spectrum and the Commodore 64 and 128 – which don't provide standard interfaces. With the Spectrum, you need to buy an add-on 'box of tricks' that will provide you with one of the two standard connectors. With the 8-bit Commodores things are worse.

Although the C64 provides two interfaces which are serial and parallel, they are unusual specimens based around a very rare form of interface called IEEE (eye triple e). IEEE itself is a parallel interface, and the C64 further distorts this into a strange hybrid to get a serial interface. The end result is something that will connect to very, very few printers.

Essentially, you have two choices: buy Commodore's own printers, or buy a special interface that will let you use 'normal' printers.

Thankfully, most manufacturers have ceased this silly practice and now provide one or both of the genuine "standard" interfaces: RS232 for serial, and Centronics for parallel. You'll find these on the Atari ST, Amiga, all PC-compatibles, and the Archimedes.

However, there are subtle variations on these standards that can still trip you up. For example, the Atari ST puts out a signal that is too weak for some parallel printers; the Amiga has voltage on an odd line that makes it incompatible with the majority of standard parallel cables; and RS232 is a scrum with manufacturers putting different signals on different lines, and using different numbers of active lines.

Regular readers of the *Learning Curve* will have read these words before but they bear repeating: insist that your dealer proves that a printer and a cable will work with your computer before you buy. It's the only way to be sure that you'll end up with a system that works.

Speaking in tongues

If it was only a question of printing out alphanumeric characters, there really wouldn't be a problem in using printers. However, that is obviously too limiting a solution. Most users will want to be able to employ different effects, if only as simple as bold, underline and italic type, not to mention graphic output.

But as soon as you introduce these features, you introduce new levels of complexity. For example, how do you tell the printer that you want the following text to be printed in bold? The answer is to send the printer a special character, one that the printer knows is not to be printed but should be interpreted as an instruction.

In the beginning, different printer manufacturers used different control characters and chaos reigned. Now, fortunately, almost all have standardised on the system used by Epson, which uses sequences of characters called Escape codes.

Escape – usually written ESC – has the ASCII value of 27, and all Epson and Epson-compatible printers recognise that the ESC character – or CHR$(27) – and those immediately following signify an instruction. So, for example, ESC E turns bold (or Enhanced) printing on; ESC l sets the left

☞

Technobabble

A weekly assault on computer jargon

Interface ● Port ● Connector

We've talked at length about RS232 and parallel interfaces, but John Lindsey of Bolton, Lancs, protested: "What exactly is an interface? And what's the difference between an interface, a port and a connector?"

Interface: A catch-all term covering the whys and wherefores of getting a computer to talk to other devices. The word itself is often applied to the physical hardware that allows such communication, as well as the theory behind it.

Port: The physical means through which data enters and exits the computer – just as a sea port is the gateway through which people and goods come and go.

Connector: The computer industry's rather grandiose term for things that everyone else knows as plugs and sockets.

Some of these terms are interchangeable. So we can talk about RS232 to mean both the theory of RS232 communications and the physical hardware through which the computer achieves the link – the interface and the port. But the two aren't necessarily synonymous – for example, the Commodore 64 understands RS232 even though it doesn't have an RS232 port.

You often find port and connector being used interchangeably, but that can also be misleading. To know that your computer has an RS232 port is useful, but to know the kind of connector it has is crucial: does it have a 9-pin or a 25-pin connector? Which pins are connected? Is it male or female?

print margin; and ESC W selects double-width printing.

So far so good, but these are only very simple effects, and ones that are common to just about all printers.

What about graphics? Now we start getting into very complicated areas. Remember that dot-matrix printers use varying numbers of pins to produce their images? What happens if your software assumes you have an 8-pin printer when in fact you have a 9-pin model, or an 18 or 24-pin? The printer either won't accept the data coming from the computer, or it will print the data but produce an incomplete image because one or more of its pins aren't being fired. At best it will produce an image at a far lower quality than it is capable of producing with the right software.

To take another example; many modern printers come equipped with a number of different fonts – different typefaces, different sizes, and so on. If your software doesn't know about these features it obviously can't use them.

• "...finding the right driver can be difficult"

It goes without saying that none of these results is satisfactory. You've bought a printer with certain features – you certainly want to be able to use them.

The answer lies in a special kind of software known as printer drivers. A printer driver is not a program; it's really nothing more than a conversion table that allows the applications program – a word processor, or a graphics program – to understand how to talk your printer's language.

With the appropriate printer driver for your printer you should be able to use all of the features of your printer. At the very least, you'll be able to use a lot more of them than if you're using a generic driver – the sort of 'lowest common denominator' of printer driver.

However, finding the right printer driver for your particular printer can be difficult. Unfortunately, too often it can be simply impossible. Furthermore, just because you find the right printer driver that will work with your word processor doesn't mean that driver will work with your other software.

Amiga owners are fortunate here. The Amiga operating system controls your printer, so one driver will work with all your software. Similarly, users of *Gem* on the PC will find that one printer driver for *Gem* will work for all your *Gem*-based software (although not necessarily with your *MS-DOS* programs).

ST owners are not so well off because Atari decided that print control should be the responsibility of the applications program rather than the operating system. PC-owners using *MS-DOS* are in the same position.

Surprisingly, few printer manufacturers supply standard drivers for their equipment, although that would seem to be the easiest, most logical approach to the problem. Instead it is the software publishers who decide what printers will be supported. If you buy a copy of, say, *WordStar* and your printer isn't on the approved list ... well, tough luck buddy.

Some publishers are better than others, providing comprehensive printer support and offering regular updates. At the least, their documentation provides details on how to construct a suitable printer driver, and the software often helps you to do that. Unfortunately, the majority choose to overlook the problem.

If you do run into problems with drivers there are places to look: public domain libraries. Even if you can't find just the right driver, you can often get hold of driver generators – programs that will help you write a suitable driver.

To take advantage of this, however, means your printer manual must include all the relevant information about control codes and sequences. Most manufacturers are good about this but not all. ●

Next week:
The final hurdles

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TECH TIPS

The place for your questions and suggestions

• Amiga A500: Can you print those on-screen fonts? See *Driver Wanted!*

HELP!

Driver wanted!

I have recently bought an Amiga 500 and an NEC P2200 printer and although I am delighted with them both, I have had a couple of problems when outputting my work to the printer.

I have been experimenting with *Notepad* and although I can display many different fonts on screen, when I print them out they revert to the P2200's standard plain font. I appreciate that *Notepad* is a basic program and that the P2200 is not listed as an alternative printer in Preferences (I use the Epson option).

But can I expect to be able to use all the fonts available in a package such as *WordPerfect*?

My second problem is that when I try to print out my creations in *Deluxe Music* and *Deluxe Paint*, I can only achieve a copy in draft and not in letter-quality mode. Any ideas?

P Fretwell, North Anston, Sheffield

• Both problems have the same root cause: the lack of a printer driver for the P2200.

The text problem arises because when you look at text on the Amiga screen you're really looking at graphics. The Amiga simply treats fonts as a special kind of graphic display. However, when you try to print your work, the printer is receiving text so text is what it prints, using its own internal font definitions.

You need two things to get your printer to print multiple fonts in true letter-quality: first, a program like *Excellence* or *ProWrite* (I don't know if *WordPerfect* qualifies) that will print in graphics mode; and second, a dedicated P2200 printer driver.

Your problem with the *Deluxe* programs is also caused by the lack of a P2200 print driver. Using the Epson driver means quality no better than you'd get from a plain 9-pin printer – a long way short of what you should expect from your P2200.

The key question is, where can you get a P2200 printer driver? Unfortunately, I'm not sure. Your best bet may be public domain software so try the **Amiga User Group, 66 London Road, Leicester, LE2 0QD**. If nothing else, they can supply a copy of **PrtDrvGen**, a program that helps you write printer drivers, which is on Fish Disk 90.

HELP!

ROM-writing

Can you explain how information is put into a cartridge, and can this be done at home?

R Salisbury, Bristol

• The heart of a cartridge is a ROM chip – but a special kind of ROM called an EPROM: an Erasable Programmable ROM. As its name suggests, this kind of ROM can be both programmed, and then erased for re-use.

The programming part is done with a device called an EPROM-blower and the process works roughly like this:

First, you have to write your program in machine-code. Then you attach to your computer the EPROM-blower complete with blank EPROM chip, and load up the controlling software.

The EPROM-blower then writes your program to the chip. The EPROM is like any other memory chip, it's just a collection of memory addresses. The crucial difference is that when information is written to the chip by the EPROM-blower, the chip itself is electronically altered so that the memory contents are fixed. It can only be erased with a powerful source of ultra-violet light.

Of course, one other thing is rather crucial – the controlling circuitry which allows the chip to be accessed by your computer, but you can generally buy cartridge kits for those computers that are designed to accept cartridges – the C64 and Atari ST, for example.

Since you don't say what kind of computer you own it's difficult to be more specific, but try **Datel Electronics, Fenton Industrial Estate, Govan Road, Fenton, Stoke-on-Trent**, who supply complete cartridge kits for a range of computers.

TIP Better batching

py disk.

I have a 1512SD to which I have added an external 3.5" floppy drive that I used to use with my Spectrum, and I always like to keep two copies of everything. The batch file I use is similar but makes use of the XCOPY command, which I find is more suited to the task if used in conjunction with the /m and /w switches.

I have included a demo batch file that can be used for hard drive users to show how it is done:

```
ECHO OFF
CLS.
```

(Users with DOS 3.30 can replace these lines with: ©ECHO OFF which I find easier)

```
ECHO.
ECHO Backing up Documents, Texts and Letters.
ECHO Please have disks ready.

:DOCS
XCOPY C:\WP\*.DOC A: /W/M/V
IF ERRORLEVEL 4 GOTO DOCS1
```

(Use of this ERRORLEVEL can enable you to switch disks if the one in drive A: becomes full otherwise control passes to the next command)

```
:TXTS.
XCOPY C:\WP\*.TXT A: /W/M/V
IF ERRORLEVEL 4 GOTO TXTS1

:LETS
XCOPY C:\W\P*.LET A: /W/M/V
IF ERRORLEVEL 4 GOTO LETS1
GOTO END
```

archive flag on the original so that if the disk in A: becomes full then when the batch file loops back it will start with the last file that it could not fit onto the last floppy. The /V switch checks that the copy is the same as the original.)

```
:DOCS1
ECHO.
ECHO PLEASE INSERT ANOTHER DISK INTO DRIVE A:
ECHO.
GOTO DOCS

:TXTS1
ECHO.
ECHO PLEASE INSERT ANOTHER DISK INTO DRIVE A:
ECHO.
GOTO TXTS

:LETS1
ECHO.
ECHO PLEASE INSERT ANOTHER DISK INTO DRIVE A:
ECHO.
GOTO LETS

:END
ECHO.
ECHO ALL FILES BACKED UP OKAY
```

R.J. Waller, London

HELP!

Cobol query

I intend to buy a computer so that I can become proficient in *Cobol* programming. Also, although not such a high priority, I would like to be able to buy educational programs for my six-year-old daughter. I have a maximum of £1,100 to spend.

I will be going to the USA – would I be able to get a better deal by bringing a machine back from there?

Donald Davies, London E17

• *Cobol* is hardly the language of choice for most personal computer owners, and that immediately imposes limitations on possible machines. Your best bet, purely from the *Cobol* point of view, would be a PC-compatible.

The question of educational software is something else again. It's a natural area of interest for parents, and the marketing efforts of the hardware manufacturers might lead you to believe that there are thousands of 'educational' programs for all popular computers.

Sadly, it just ain't so. In fact, you might as well accept that there is no educational software worth a damn for any computer other than the BBC Micro/Acorn Master. However, computers can be inherently educational, informative and stimulating without specialist software.

Any child should find computer painting and music programs, for example, educational and fun as well. A programming language like *Logo* can develop problem-solving and mathematical skills.

But to hold a child's interest, you're going to need a computer with good

☞

graphics and sound. And that rules out the PC.

On balance, your best bet is probably the Atari ST, with at least one *Cobol* – *Nevada Cobol* – readily available. Your budget would give you enough for a computer, colour monitor and printer, and enough left over for your *Cobol* compiler and some other software.

Don't bother buying in the States – you won't save much, if anything, and you have the hassle of finding and using a power transformer.

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HELP!

Blitter taste

I currently own an Atari 520STFM and am very satisfied with this machine. However, I am thinking of upgrading by adding a blitter chip to it. What I would like to know is whether the advantages of a blitter chip are conferred automatically or whether the software must be written to specifically take advantage of it.

Would the blitter speed up *PC Ditto* for running PC programs?

I would also like to know whether *K-Resource II* is what I think it is, a resource file construction kit for Gem? What is the earliest model of ST capable of taking the new TOS upgrade and how much is it likely to cost?

Finally, I read the article on the proposed Atari CD-ROM players, and in *New Scientist* I read that someone may release blank compact disks. Will the Atari player to be able to write to CD as well as read, despite the name?

Ian McCall, Greenhill, Sheffield

• Bad news all round, I'm afraid. For one thing, you can't buy a blitter upgrade. Despite the fact that Atari has promised them for more than a year now, I understand that the company has dropped the idea although it won't say so officially.

All of the new STs have the blitter fitted, but it will only speed up those programs that use the built-in Gem display routines which excludes most games. I doubt it would help *PC Ditto* at all.

Similarly, you're unlikely to be able to buy the new TOS upgrade and retrofit it to your machine. If you really want these hardware upgrades you'll have to swap your existing ST for a new model.

Atari's CD-ROM player – or anyone else's, for that matter – cannot write to a compact disk. The name says it all – Read-only memory. There are devices called WORMs – Write Once, Read Many – that offer a halfway house, and newer technology which ought to arrive in a year or two promises full read/write capability with laser disk systems. However, such devices are likely to be very expensive – far more than the cost of existing hard disk drives.

Finally, a bit of good news: *K-Resource II* is exactly what you think it is. HiSoft also has a resource editor called *WERCS* which those in the know reckon is even better.

HELP!

Monitor mayhem

Could you solve a problem regarding an ST? At work we use a program called *MasterCAD* running on a 1040ST and hi-res mono monitor.

Sometimes I wish to work on things at home but when I try to use *MasterCAD* then it won't load properly. I also have a 1040ST but my monitor is a Philips medium-res colour model. However, the instruction manual says *MasterCAD* works in medium or hi-res modes.

Won't it work with certain monitors, even if they are the correct resolution?

P Olsen, York

• I haven't been able to get a definitive answer on this, but there are really only three possibilities.

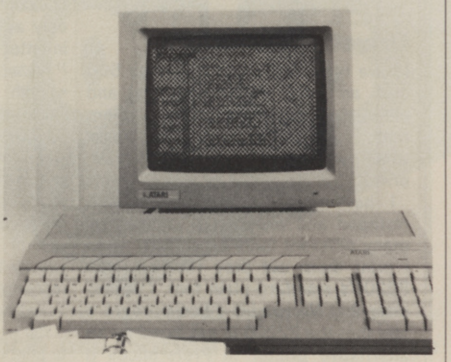
First, the program may be sold in two different versions – one for hi-res, another for medium-res monitors. In which case you've got the hi-res version.

Second, you're trying to use a duff copy. This might be because the program is copy-protected and you're trying to use an illegal copy, or it may be that you've got a dodgy back-up.

Third, the software has to be installed to work with the different kinds of monitor.

If you're trying to use the original disk you can rule out the second possibility. To test the third, read your manual closely to see whether installation is mentioned and follow the instructions closely.

If you can rule out these two, that only leaves the first. A quick phone call to the publisher should confirm that, or if you've got the original packaging you might find a sticker on it somewhere saying "Mono only" or something similar.



• Monitor compatibility on the ST: see *Monitor Mayhem*

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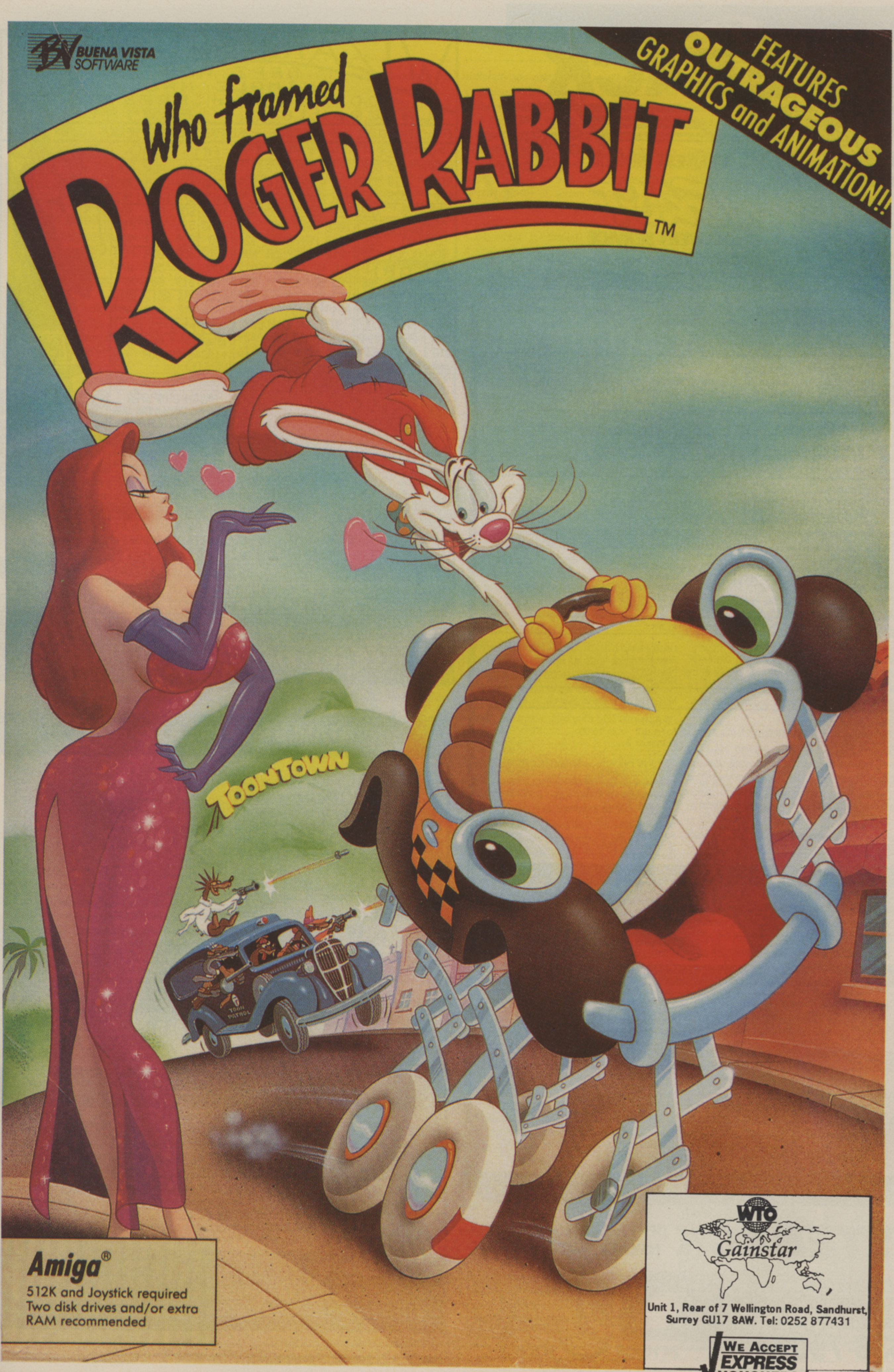
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CLUB ST

Unix for turbo-charged ST?!!

It's no joke, matey. And it's nothing to do with the much-rumoured 68030-based Unix machine or Super ST from Atari. Ah, so you're interested now? Just remember you read it here first.

Eagle Computers, notable for its innovative touch screen for the ST range, revealed exclusively to me that sometime in January an accelerator board will be ready for Mega STs. Provisionally priced at £299, the board will sit in the socket currently occupied by the 68000 micro processor. The board will consist of a 16MHz-rated 32-bit 68020 processor and will have a socket for a 68881 maths co-processor.

According to Eagle's managing director, Steven Grifiths, sockets for extra RAM might also be included on the board. Whether the sockets will allow expansion beyond the current 4 Mbyte limit of the ST is, as yet, unclear. Whatever the case, being able to simply slot RAM chips into sockets would be so much easier than having to desolder holes on the ST's circuit board.

Another very real possibility is the bundling of the multi-tasking, multi-user operating system Unix with the accelerator. Naturally, the price would be way over £299. Still, even the notion of Unix on an ST is truly extraordinary. And to think that just two weeks ago Atari's technical manager, Les Player, was quoted dismissing this possibility. "I don't think any ST owner has to worry about seeing Unix." Worry! Who's going to worry? The mere fact the ST is powerful enough to carry off such a feat should fill every ST owner with pride. Remember, Unix is a mini/mainframe operating system.

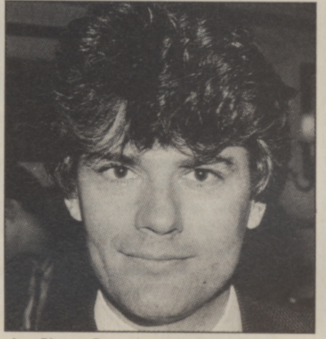
That doesn't mean I approve of Unix. In fact, it is a messy system written in *C* that takes up absurd amounts of memory (8 Mbytes or so) and even larger quantities of disk storage space (You really don't want to know. Oh all right, it's 80 Mbytes). Because of its size, Unix requires a powerful processor just to make it tick over at a reasonable rate.

Enough of Unix; back to the board. Apparently a 68020-boosted Mega ST will operate between two and three times faster than a standard ST. That will definitely be noticeable. *Fleet Street Publisher*, *Terrestrial Encounter* or *ST BASIC* at twice the speed would be quite something: the products will actually be usable. Even more incredible is the fact that the board will operate with all software – so says Eagle, which has tested numerous items.

The accelerator won't be available – at least, not yet – for 520 or 1040 computers. The reason, it seems, is that the logic inside these machines is different to the Mega range. Consequently the board only offers a meagre 80 per cent speed increase on 0.5 and 1 Mbyte machines.

Boards based on the same technology will eventually be available for Apple Mac and Commodore Amiga machines – but that's not interesting.

To find out if Eagle's board will suit your needs write to Eagle Computers, 2nd Floor, Glamorgan House, David Street, Cardiff, CF1 2EH or phone 0222 390286.



• Les Player: Proved wrong on Unix?

Retrograde upgrade?

I can see the logic in an ST emulating an Apple Mac or PC. Apple Mac users, after all, have some very sexy DTP packages to play with: *Pagemaker II*, *Xpress*, *Ready Set Go* etc etc. And PC owners have the largest public domain/commercial software base of all machines to choose from. Can the QL boast even half as much? No! So why has Strong Computer Systems announced a QL emulator?

My only explanation – and believe me it is weak – is that users of the 68008-based machine want to stick with the QL operating system while working in a fast 16-bit environment. When the QL first came out it was often touted as a 16-bit micro. Naturally, this is nonsense, as the machine only has an 8-bit data bus and 20-bit address bus (basically it can communicate with the outside using eight lines and at most can access 1 Mbyte).

Forget for a moment why you should want such a system. Instead marvel at Strong Computer's engineering feat. The emulator is part software and part hardware. The hardware comprises a circuit board which slots into the socket currently occupied by the ST's shifter chip (that's the silicon slither that looks after the computer's screen modes and colour capabilities). Shifter must be removed before the board can be fitted into place; it finds its new home on the circuit board. The custom circuitry provides the QL screen handling while the software supplies the operating system environment.

According to Strong Systems "virtually everything" QLish will run "about two times faster" on a suitably modified ST. The emulator costs £250, which includes the fitting fee. If you're a DIY fanatic, or fancy saving £50, you might like to try the operation.

Further information from **Strong Computer Systems, Bryn Cottage, Peniel, Carmarthen, Dyfed, SA32 7DJ**. Telephone 0267 231246.

Odds and sods

1st Script – Softline, Electric Distribution's user club, has announced a desktop accessory that lets you dump a *1st Word Plus* file to a PostScript laser. The utility can also be used to send PS files produced by *Timeworks Publisher* (and the various other DTP offerings) directly to a laser printer. The program costs £9.95 (£4.95 to Softline members) and is available from **Softline/Electric, 8 Green Street, Willingham, Cambs, CB4 5JA**.

WERCS Plus – HiSoft's WIMP environment resource construction set has been upgraded to include GDOS. Briefly, GDOS is an extension to the Atari ST operating system that lets you manipulate several fonts on screen and printer. Price is £49.95. Details on 0525 718181.

1040ST-FM Super Pack – Yes, it's finally happened. In an attempt to shift these slower selling beasts, distributor SDL is bundling the machine with the same games that make up the 520ST-FM Super Pack. The 1040 remains at £499, but now comes with £458.97 worth of goodies.

Network nightmare

Anything with a multi in front of it must be good. Right? Well – there's multi-tasking, but have you seen it in operation on the Amiga? No, neither have I. At best I'm treated to a Guru Meditation. The latest ST buzz word is multi-user. It's all to do with connecting a number of computers, printers and storage devices in a bus, ring or star formation. This fancy communication formation has a fancy name: network.

Networks are used for sending and receiving information to and from various sources, sharing expensive hardware (laser printers, massive tape streamers or hard drives, plotters) and even editing files stored on another person's machine. Fun? Not really. Networks are generally found in educational establishments and offices for doing serious things.

Believe it or not, network systems have been available for the ST for some time, and new ones are due on the scene shortly. But unless you've got gross amounts of cash to spare, and lots of STs dying to be joined together, don't read on.

Currently you can choose from *Atari Network*, *PunchNet* and *PunchNet Plus*. The unimaginatively titled *Atari Network* follows the ring topology and can have 125 things connected in the ring. Devices can be hooked together at a cost of £150 per item. A £100 software site licence must be added to the overall price. Ninetiles on 0223 862125 can tell you more.

Software Punch has two networks on the go with a third nearing completion. *PunchNet* is the more basic and is simply a printer sharing system. Data is transferred via the RS232 at 9600 bits per second. Cost per user is £160. *PunchNet Plus* hurls data around the bus network at 1 Mbit per second. It can notionally accept 32,000 users. Price per user is £400. Punch's forthcoming network will work using *Ethernet* conventions. It will operate at 10 Mbits per second and will cost a staggering £650 per device. Software Punch are on 051 7345827.

Silica (01-300 3399) will distribute *ANET* from Dutch company Cosmo sometime in March 1989. *ANET* will be a midi port to midi port optical ring network. Price hasn't been finalised, but is likely to be near £230. *GNET*, apparently on display at the recent Comdex show, might also be taken up by SDL. Unfortunately I have no details on that system. If you wish to find out more about networks, what they can do for you and what's available ST-wise, I suggest picking up the February issue of *ST/Amiga Format*.

Contributions welcome

Software houses: if you have any new ST product, upgrade announcements, change of address details, user clubs you want hyped, points of view, disagreements with what I have written etc etc, then please send them to me. The address is below.

Readers (yes, you): have you been to Outer Mongolia and come back with an incredible new ST product, have you discovered a tremendous hack for a game, do you know of a great PD source? Don't keep it to yourself. Share your knowledge with other enthusiastic ST owners.

The address to write to is **Club ST, c/o NCE, 4 Queen Street, Bath, BA1 1EJ**.

Richard Monteiro

Cheat Street

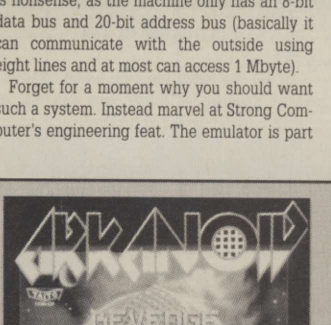
BAAL

Didn't expect anything so soon, did you? Although this doesn't rank amongst the elite of cheats, it's better than a Psyclapsed lung. Six warriors is definitely too few for serious gameplaying.

Every 5,000 points you get an extra warrior; points are gained by destroying monsters. You'll find that most monsters reappear if you back track. Consequently all you have to do is to find a convenient refuelling location with monsters nearby. Simply walk between the two amassing heaps of points. It's boring, but ultimately rewarding, work. One such spot you might like to try is 08-49 on the first level.

ARKANOID II – REVENGE OF DOH

You're probably well aware of the IMAGINE cheat. When the pink title screen appears type IMAGINE while holding down Caps Lock. When the game has completed loading type PETEJOHNSONWANTSCHEAT. Simply press S during the game to skip a level. You didn't know that one? You do now.



If you hold down Caps Lock and type DALEY88 while the pink screen appears, you can continue on the level on which you died.

This last bit won't be known to you. It's a hidden feature rather than a cheat mode, and probably won't be of much interest. Still, here goes. While the game loads hold down the right hand mouse button and keep tapping the left button. Once the disk whirring stops let go of the left button, but continue to hold the right button. You will see an advertisement for Robocop.

BOMBUZAL

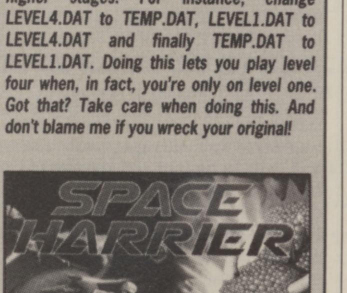
Here are some codes to help you get to further levels:

Code	***Level***
Bomb	***1***
Ross	***8***
Ratt	***16***
Lisa	***24***
Dave	***32***

SPACE HARRIER

Get a mate to press the space bar while playing. This slows the game, allowing you to go at any pace you like.

Swap the level filenames – found on disk 2 – if you're having difficulty reaching the higher stages. For instance, change LEVEL4.DAT to TEMP.DAT, LEVEL1.DAT to LEVEL4.DAT and finally TEMP.DAT to LEVEL1.DAT. Doing this lets you play level four when, in fact, you're only on level one. Got that? Take care when doing this. And don't blame me if you wreck your original!



PC UPDATE

Third time lucky?

Desktop publishing is not quite as new an activity as you might think. Sure, the paper-white window-laden screens and page layout programs only date back a couple of years, but there are earlier (and cheaper) programs which go back quite a bit further and still provide many of the features of today's leading products. One of these is *Fontasy*, just released in a brand new version.

Fontasy has a long heritage dating back to an early public domain program for the TRS-80. Since then it has transferred to the PC and undergone a number of changes, culminating in version 3, at just a touch under £100. For your money you get a powerful and very flexible page design tool, which can provide a huge number of fonts for 9 pin, 24 pin or laser printers. What you don't get are all the bells and whistles of the accepted WIMP environment, which either get in the way or are the only thing which makes DTP possible, depending on your viewpoint.

Issue 2 • Nov 19, 1988
NEW
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● Has this man paid $6m to IBM?
- see page 4

• Fontasy – not quite up to NCE's page layout

Fontasy works on a standard graphics screen: Hercules, CGA or EGA, which it senses automatically. You build up your page at something less than 1:1 on the screen, which means you can only ever see a part of it, except in a view only full-page mode. This can make life a bit awkward but, as with many things in *Fontasy*, you have to become accustomed to them before you can get the most from the program.

In its simplest form *Fontasy* is great for producing hand-bills, posters and flyers. It comes with over 30 fonts, ranging from minute sans-serif faces for captions and footnotes to big fancy fonts ideal for headlines and attention-grabbers. You can type text directly onto a *Fontasy* page or use the bundled FED text editor to prepare the text and then flow it onto a 'template', which will automatically direct it to the right parts of the page.

Templates are ready-made layouts which can be saved to disk separately from text files and combined with them to automate page layout. They can include pre-defined graphics or text, so repeating copy can be set up once and for all. Text can be made to flow around graphics, either in rectangular boxes or bearing off from the bits of the picture itself.

Drawing functions are fairly comprehensive, with standard shapes like rectangles and circles as well as freehand drawing and pattern fills. There are over 95 different fill patterns. *Fontasy* works with the cursor keys or the mouse, but obviously the drawing functions are best handled with the mouse.

New features of version 3 over earlier editions include increased text formatting speed, placing of blocks in XOR mode, EMS memory support as standard, improvements in FED, font enlarger for 24 pin fonts and increased support for laser printers (including HP's pseudo-laser, the DeskJet).

What the new version hasn't improved is the control structure of the program. I know this is becoming a hobby-horse of mine, but *Fontasy* illustrates it better than most other programs. During its growth from a much simpler package, new functions have been added on with very little thought for how the poor user is to remember the key sequences which control them. A passing attempt has been made to tack on a menuing system, but this is both unwieldy, with functions appearing where you least expect to find them, or much more long winded than the 'shorthand' command sequences which they replace. It's very difficult to find happy homes for all the different commands that are needed for a complex system like *Fontasy*, but the solution adopted, to soldier on regardless, isn't really one at all.

There's no doubt that *Fontasy* has become an extremely powerful page layout program. With increased support for high-quality printers, it's hard to ignore its potential as a serious DTP program. There's also no doubt that it's long overdue for an overhaul. There really is a lot to be said for the kind of structuring and grouping employed by programs like *Ventura* or *Timeworks DTP*, and it's a shame ProSoft, the US publishers of *Fontasy* can't bite the bullet and revamp the working environment. Contact Nigel Grant at the Ctrl Alt Deli (0906 662759) for more information. If you can put the time into learning *Fontasy* it will pay big rewards.

Games gloss

You might think from the general content of this column that games don't figure highly in my arsenal of PC software. This is largely true, but not because I don't enjoy playing them. The truth is that, until EGA becomes an accepted standard for graphics displays, they really aren't worth playing.

OK, that's not quite true, as strategy games and adventures don't benefit that much from zingy colours, but virtually all arcade games look really naff on the PC. Even when you get to EGA, which ostensibly can show 16 colours from 64, you tend to find the same 16 used throughout, which doesn't give much scope for shading or the subtle interplay of light!

There are a few notable exceptions. *Tetris*, which has to be one of the all-time great games on any machine, does quite well under EGA. The idea behind it is so abstract that colour is really only an aid to recognition rather than any attempt at reality. By and large, though, games which look great on the ST or Amiga (and even on the Amstrad CPC for that matter) look pretty rotten on a PC.

This is a shame, as in other respects the PC is an adequate games machine. The resolution of an EGA screen is on a par with those on other games micros, the way the memory is organised lends itself to fast object manipulation and Intel machine-code is, I'm assured, not difficult to learn if you're moving up from Z80 code (as seen on Spectrum and CPC).

Sound, well another sad case. The PC was designed as a business machine and it seems no businessman can bear the sound of a *zap* or *boing*. A single square wave sound channel that wouldn't do justice to a castrated hornet is not what's needed for a modern games machine. Why doesn't some enterprising company put together an expansion card with sound and or speech chips on it to give the PC a chance? There's a lot of inertia to overcome: games makers would have to be persuaded to write for the card, games players would have to be persuaded to buy it. It's not unheard of, though. There are a lot of Spectrums out there with add-on sound modules, and a lot of noisy games written for them.

FINDing out

Within DOS there's a command which searches through a given file looking for a given string of characters. Sensibly enough, the command's called FIND. Here's an example:

```
FIND "zap" NCE15_12.COL
```

This command would hunt through the file NCE15_12.COL (coincidentally the name of this column's file) looking for the the word 'zap' (which it would find in the previous item). This is very handy, but assumes you know which file to look in. A more useful version would look through a number of files – would allow wildcard file specifications. This can be done with a simple batch file, like this:

```
ECHO OFF
if exist %2 goto gotit
ECHO No files match specification
goto bye
:gotit
for %%a in (%2) do find %1 %%a
:bye
```

Enter the batch file with a text editor and save it as SEARCH.BAT (you can also use COPY CON: SEARCH.BAT) and then type something like:

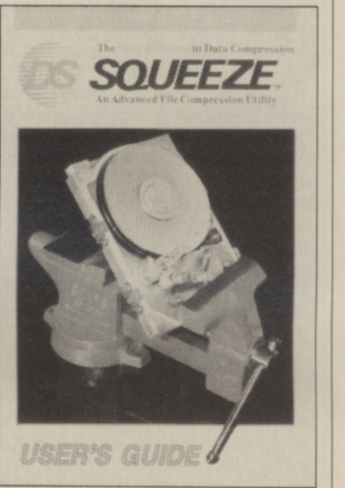
```
SEARCH "zap" *.*
```

The program will search through all the files in the current directory looking for 'zap'. This short file was devised by C.A. Cussen of Wincanton and used in an early issue of *PC Plus*. It's so useful it's worth repeating, though. Thank you C.A.

ARKing across

If you run a business, or keep records for a club, no doubt there comes a time when you hive off some of the records in a box file or tie them up in a bundle and deposit them in your bottom desk drawer. The same thing happens to your disk files, though you probably don't notice it so quickly. You begin to notice only when your hard disk gets full or you start running short of floppies.

What you need to do at this stage is to archive the files to spare floppies or separate sub-directories of your hard disk. There are specialist archiving programs available which not only handle the 'bundling up' of the files but also compress the data in them so they take up much less room. A typical text file can be compressed by over 50 per cent, and even program files can lose up to 15 per cent. Space is gained in two ways, though, as archiving programs combine several files into one archived file, saving the space taken by each file's directory entries and any clusters lost as a result of DOS fragmenting the file into several parts.



• DS Squeeze claims to save up to 75 per cent of current disk space

Two programs which archive well are *PKARC*, from Shareware Marketing (0732 771344) among others, and *DS Squeeze* from the Ctrl Alt Deli (0908 662759). As well as being useful for keeping copies of files, you can also save telephone time by archiving files before sending them over a modem. Both these utilities let you look at the contents of any archive, extract individual files from one, and reassemble all the files as they were before archiving. Both will also let you encrypt files as they're stored. *PKARC* will also let you build self-unarchiving archives (horrible phrase) which explode back to life without having to run them through the unarchiving part of the original program.

Simon Williams

Cheap pep up

In case there are people out there who haven't realised it yet, you can give your 8088, 8086 or 80286-based PC a cheap pep-up for about £25. Some while ago the Japanese company NEC took apart the Intel chips which still power the majority of PCs and made a few alterations. The alterations were transparent, which means that programs running on the PCs didn't notice any difference, but made a difference of up to 20 per cent in the speed at which they ran.

There was a legal wrangle in the US about the chips, but nothing significant seems to have come of it, and there are certainly plenty of suppliers of the NEC chips who advertise openly in the PC monthlies. All you have to do is open up your machine, remove the 8088/8086/80286 from its socket and replace it with the appropriate NEC chip. Nearly all CPU chips are mounted in sockets these days, in case they need replacement, so as long as you're careful easing out the old (the time-honoured method involves the plastic top of a Bic ball-point as a lever) there's no reason why you should not do it yourself.

Why not give yourself an extra Christmas present? The chips you want are V20 for the 8088, V30 for the 8086 and V40 for the 80286. Try RSC (0923 243301) or Evesham Micros (0386 765500).

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AMIGA BLIT

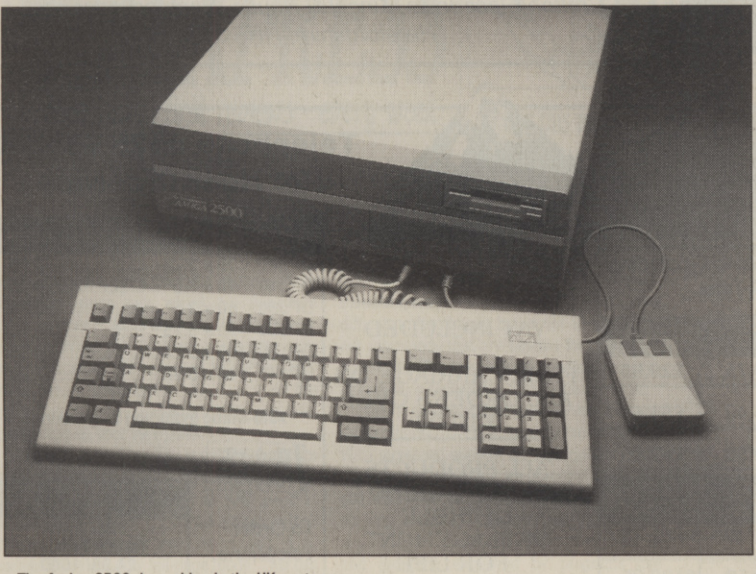
1988: A Personal view

On the whole, 1988 has been a good year for the Amiga. We've seen it rise from being a second-division machine to one of the current best sellers. The factors that fuelled the explosion in Amiga sales?

Firstly, the DRAM shortages suffered by many companies, including Commodore's arch rivals Atari, during 1988 forced the prices of the Amiga's main competitors to rise.

Only a month or so before the DRAM shortage hit the industry, Commodore dropped the price of the Amiga by £100. Luckily, in a rather uncharacteristic show of forward planning, Commodore was prepared and the Amiga price stayed steady. These two factors provided an uncertain public with just the kind of incentive they needed to take the plunge and buy an Amiga.

Software support, both in the games sector and in the more serious market, rose from a rather displeasing trickle of sub-standard titles at the beginning of the year, to the current flood of quality programs. Clearly this came about as a result of the increasing popularity of the machine in the sales stakes and many top software houses, including US Gold and Ocean, are now producing Amiga versions of nearly all their releases.



• The Amiga 2500: Launching in the UK next year

1988 saw the release of some programs that will probably go down in the annals of Amiga history as classics. Probably the most important release was Electronic Arts' excellent *Interceptor*, which achieved the highest position in the games charts ever by an Amiga-only game.

The year also saw the release of one of the most eagerly-awaited game sequels in the form of Jez San's *StarGlider II*. The game was originally planned to be released on a single, dual-format disk, but to the surprise of many, the game's distributors dumped the idea, claiming the new system was confusing and inconvenient for retailers. When *StarGlider II* did finally arrive in the shops, the only difference between the dual format version developed by Jez and the release version, was the sticker on the box!

So what will the new year have in store for our beloved machine?

This time next year, sales of the Amiga will have hopefully risen to a point where Commodore will be able to drop the machine's price still further. Expect to be paying around about £299 for an Amiga A500 next Christmas.

One thing that is certain is that the Amiga family will be increasing in size during 1989. New machines such as the A2500 and possibly even the A3000 will finally be with us.

The current Amigas too will change as Commodore ups the standard. Rumours have been rife for a number of months now of Commodore increasing the RAM in the standard A500 to a full megabyte and as more and more software arrives requiring the extra memory, this looks likely.

Furtling with the Facts

You may remember a couple of weeks ago I was baffled by the meaning of the term 'furtling' as in the 'Disk Furtling System' promised for the the forthcoming Amiga BBC Emulator.

You'll be pleased to know I've been put out of my misery by a phone call from Rob Wait at Spire Communications.

Furtling, it turns out, is an old Lancashire expression meaning to 'fool around with' or 'to rearrange'. For example, Lancashire farmers are often heard saying "...I furtled with the dung with my furtling stick".

The man responsible for bringing the term into computing is the programmer of the emulator, Dave Parkinson at Ariadne. It was a simply a variation of "Disk Filing System" (DFS), employed so as not to infringe Acorn's copyright. Well, there you are. Don't say we don't bring you the hottest insustry stories!

Aegis: Alive and Well!

Some disturbing rumours have been floating around for a number of weeks now concerning the American company, Aegis Developments. The rumours claimed that Aegis had gone into liquidation because of heavy financial losses.

If the rumours were true, this would surely have been a terrible blow to the Amiga. Aegis was one of the few software houses that supported the Amiga from day one. Over the three years that the Amiga has been available, Aegis products have led the way and have become a standard for others to be judged against.

Shocked by the rumour, I spoke to HB Marketing, the largest distributor of Aegis products in the UK. HB reassured me that the company was still going strong. They had been assured by Aegis that any problems were now behind them after a recent major restructuring of the company.

Amiga gets the Chop

Fans of System 3"s excellent *International Karate+* on the old Commodore 64 will be pleased to know that its programmer Archer Maclean has seen fit to convert the game to the Amiga. If the ST version was anything to go by, the Amiga versions should be a real corker!

Loadsatips!

Not just one tip this week, but three! If you're fed up of being shot, eaten, or beaten to the winning post then we've got a tip for you.

HUNT FOR RED OCTOBER
After about seven days at sea your nuclear drive will eventually fail and you will be stranded. When this happens, save the game immediately, reload, and restore the saved game. Now when you switch to nuclear drive, they should be functioning at full capacity.

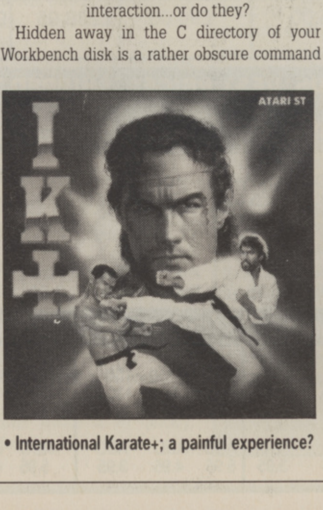
BETTER DEAD THAN ALIEN. You've already read about the cheat mode in BDTA so here's a handy little tip that should keep Brad Zoom out of trouble. If it looks as if you are about to collide with an alien or a bomb, pause the game and you should now be able to move your ship away from danger into a safer location.

THE UNINVITED. Collect the matches from the pantry and use them to light the fire in the first room and then place the box in the fire to obtain the pentagram. To scare off the dogs outside the temple, say the words 'Instantum Illuminaris Abraxas'.

One of the most interesting features of an Archer Maclean game is its hidden oddities. The ST version had its fair share and, according to System 3, Archer couldn't stop himself from adding these to the Amiga version as well. For example, by typing various words on the keyboard during play, several rather unexpected things can be made to happen; even *Pac Man* makes an appearance!

When Archer visited our offices in Bath, I asked him whether an Amiga version of the classic 64 game *DropZone* was on the cards. Archer explained how surprised his was by the number of people that had asked a similar question and he would certainly give the suggestion serious thought.

Go for it, Archie, you'll have a friend for life.



• International Karate+; a painful experience?

Ask and you will be Answered

One of the most useful facilities offered by AmigaDOS is the ability to create batch files. A batch file is best described as a program made up of DOS commands. Unfortunately, the major difference between a batch file and a program is that AmigaDOS batch files do not allow any form of user interaction...or do they?

Hidden away in the C directory of your Workbench disk is a rather obscure command that does not appear in any of the official AmigaDOS manuals. The command in question is ASK.

This appears to have been a late addition to the current release of *Workbench*, version 1.2. In fact the original 1.2 enhancer kits sold to A1000 owners didn't even include the command. However, this rather obscure command is one of the most useful for Batch programming.

ASK is used to ask the user a simple yes or no question and then act according to the returned answer. For example, if you included the line, ASK "Do you want to copy all files?", the string "Do you want...etc" would be displayed and execution of your batch file halted until you entered either Y or N.

Your response to a question can then be acted upon using the AmigaDOS 'IF' command. The IF command works by reading various flags that are maintained by the disk operating system. If the answer was Y, then the WARN flag will be set, otherwise it is left unset. Therefore, by simply checking the WARN flag, the result of a question can be established.

As a working example, the Ask command could be used to customise your boot disk's startup sequence so that the Amiga would boot exactly as you wanted it to. Say you wanted to have your Amiga ask you whether to load *Workbench* or to just exit to the CLI. The following batch file would do the job:

```
ASK "Do you wish to load Workbench?"
IF WARN
   ECHO "OK, LOADING WORKBENCH...."
   LOADWB
ELSE
   ECHO "OK, DROPPING OUT TO THE
CLI...."
   SKIP EXIT
ENDIF
ENDCLI > NIL:
LAB EXIT
```

The batch file above firstly asks the user a question and then, depending on the result, the *Workbench* program is run. The 'SKIP EXIT' line basically stops the current CLI window from being closed by skipping over the command 'ENDCLI > NIL:'. If this is not done and *Workbench* is not loaded beforehand, you will be unable to do anything with your machine and will have to reboot.

Jason Holborn

Message Port

If you have any comments about any issues raised within this column or the Amiga scene in general, why not drop me a line. Equally, if you have any tips that will help others get the most from their Amigas then I'd love to hear from you. Write to: AMIGA BLIT, New Computer Express, 4 Queen Street, Bath BA1 1EJ.

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SPEX

Another drive

The Spectrum is a machine not short of fast storage devices. We have had the Microdrive, Wafer drive, Opus Discovery, Plus D disk interface and the +3's built-in 3" drive, of course. Here's a newcomer; the 3.5" 'Clive Drive' from Ergo Systems, Unit T9, Stillergan Industrial Park, Stillergan, Co. Dublin, Ireland.

Not many details at the moment, but the price – £60 – undercuts the competition, and anything named after our one-time leader and hero can't be all bad. They are also marketing a 'Clive Printer'. Doesn't sound quite so snazzy somehow.

Coupe coup

After what seems like centuries it's great to see Miles Gordon Technology has finally unveiled its SAM range of Spectrum compatibles. Speaking as someone whose breath has been baited since the project was announced, I'm excited.

It looks like we've eventually got a Spectrum upgrade, a whole new machine to explore and discover – and still run our software collections on. I know MGT is keen to play down the Spectrum compatibility, but as far as I'm concerned it's a major selling point.

Whether the rest of computerland will be as enthusiastic to accept the Coupe is a different matter altogether. I have a feeling many will dismiss it purely as an enhanced Speccy, a +3.5, and distinctly low-tech. That would be a pity, as although I haven't seen full technical specs yet, I reckon there will be a lot more to it than that.

Selling the machine is another problem facing MGT. Will the public be prepared to buy mail-order from a smallish independent firm? While you and I are as happy to do this as go into somewhere like Dixons, I'm not sure how ready your average man in the street is to buy a computer without first hearing some bumph (as detailed in issue 2!) from the salespersons in the High Street. MGT isn't exactly well-known outside computing circles, but it has promoted itself as reliable mail order specialists recently, which should help.

To conclude this, the first in a series of 5638 Coupe Comments, congratulations to MGT for daring to do what Amstrad wouldn't. It's got my support, and it'll need yours too when the machine goes on sale in April. (Incidentally, when does my review Coupe arrive?)

Alternative television

The annual consumer shopping season, sometimes known as 'Christmas' is well and truly here. Still stuck for pressies? Well, here's one from me in the form of a definitive guide detailing exactly what should be under every self-respecting Spectrum owner's Christmas tree on the 24th.

For the shoot-em-up freak it's got to be *Operation Wolf*. No complex plot or gameplay to confuse one's miniscule mind. Just blast your way through six commie-infested battlefields. Disturbingly satisfying. Remember to make an appointment with your psychiatrist.

Are you an arcade adventure nut? It all depends how you like 'em. Fans of Incentive's *Freescape* masterpieces will just have to have the third in the series, *Total Eclipse*. Set in 1930's Egypt, it's a brilliant *Indiana Jones* type romp through a booby-trapped pyramid. Great stuff. *Batman*, on the other hand, is a side-on affair with some beautifully-drawn graphics. Everything you'd expect to be included has been. There's the Penguin, the Joker and even annoying sidekick Robin (no comparisons with your favourite Spectrum columnist please). It's presented in comic book style, with plenty of combat action in between the puzzles. Not as brain-stretching as *Total Eclipse*, but good fun all the same.

For hardened pixie bashers (AKA adventurers) the choice is pretty limited. *Lancelot* from Level 9 (should be OK, but I haven't actually seen it yet. Probably the best thing available in the shops is the *Colour of Magic*. Written by zany Fergus McNeill, this is the adventurised version of Terry Pratchett's hilarious fantasy novel. It's four loads long and has just been re-released by Alternative for £1.99. Some of the best stuff resides in the home-grown market – see last issue for details (and if you haven't got it, contact the Back Issues Dept. immediately!).

Coin-op conversionists have a huge range to choose from. Personally, I'd go for *R-Type*. Public demand prevents me enthusing further, but see issue 1 for (exclusive) details. *Afterburner*'s an excellent conversion – it manages to capture the graphics, speed and boredom-inducing gameplay of the coin-op. No hydraulics, unfortunately – unless the base on your swivel chair's wonky...

Simulation slaves will have a pretty disappointing Christmas. Forgetting, and I bet you're trying, Code Masters' range – not true simulators at all – there's not a whole lot around. Digital Integration's latest – *F16 Combat Pilot* – isn't out yet, which is depressing because it's bound to be good. Why not try the *Flight Ace* compilation from Gremlin? It features six flight sims: *Air Traffic Control* (novel), *Spitfire 40* (best played with moustache and flying goggles), *Strike Force Harrier* (not bad), *ATF* (brilliantly scary low-level flying jobbie), *ACE* (good) and *Tomahawk* (excellent helicopter sim with vector graphics). That should keep you happy providing you haven't got more than three of them already.

You dig strategy games? Again, not much about in this coin-op swamped market. Cases Computer Simulations should have its *Ancient Battles* game out soon. Also, it might be worth scanning the shelves for *Rebelstar Raiders II*, just in case Firebird has got its act together. Having said that, if you haven't already purchased *Laser Squad*, by the same author, from Target Games, buy it now to avoid embarrassment.

So you bought a +3 for Christmas? An absolutely essential item that will make your life complete is the Multiface 3 from Romantic Robot (01-200 8870). Definitely the only reliable way of transferring your cassette stuff to disk.

OK technobuffs, fancy a bit of video digitising? Check out the Vidi-ZX Digitiser at £29.95 from MGT (0792 791100). Hopefully I'll be able to scrounge one for review. Also from MGT, the Two Face – a two-way switchable interface which should prevent congestion around your parts.

If finances are limited, budget software is the thing to go for. At least is used to be. Lately, the cheapie sector seems to have gone downhill and it is now choc-a-block with re-releases and badly programmed full-price rip-offs. Maybe the budget bubble's burst. The best golden oldies I've seen are *Bomb Jack*, *Commando* and any Gargoyle hits of yesteryear now residing on the Rack-It label. As for original budget stuff, Code Masters is ahead of the rest at the moment. If you can put up with the Darling life story and photo in the inlay, both *Rugby* and *Skateboard Simulator* are good fun; ideal for passing a rainy afternoon, but that's about all.

Finally, here's something completely, absolutely, unquestionably essential. You haven't guessed yet? Why, I talk of a subscription to what must surely be the universe's bestest mag – no, not *Mayfair* (*That's enough naughty bits – Ed*), but *New Computer Express*! (Can I have my Christmas bonus now?)

Northern lights

I was interested to see Sector Software is organising a Northern Sinclair Show. Despite the fact the name conjures up images of black puddings, whippets and flat caps, it's got to be a step in the right direction. Up until now, most of the computer shows, not just Microfairs, have been based in London. That might be all well and good for soft southerners like myself, but the big smoke is clearly too far for about half the population to travel. The proposed venue is Preston, some time during March. Call Sector on 0772 454328 for details.

Fanspeak

Although it's nice to read about your Spectrum in a professionally-written (hard to believe, looking at this) and well-produced glossy, I'm personally also a great believer in alternative publishing and the world of fanzines.

Fanzines are quite literally magazines written *by* fans *for* fans. They exist in most hobbies, and computing's no exception. In fact, the sometimes solitary nature of our hobby seems to have spawned more than its fair share.

Sad to say, some 'zines are set up purely and simply to wangle review software, and after churning out a few irregular, badly-written issues they thankfully disappear. Unfortunately, this tends to reflect on the genuinely worthy back room publishers who consequently get little support. Don't get the idea that there's any cash in it, either. Break even and you're lucky. Most editors publish for love, not money.

I'd advise everyone to check out fanzines. They offer can offer well-written, enthusiastic and totally unbiased editorial at a grass-roots level. It is also easy to get involved. Send a contribution to an independent mag and it's more likely to end up in the next issue than the bin!

So I've persuaded you to buy a Spectrum fanzine – which one do you choose? Well my favourite is a rag called *Spectacular*, if only because I write for it! Yes, this is a shameless plug for a magazine I'm involved in. *Spectacular* is jam packed with reviews, news, hints and chat, as well as running regular tech, programming, strategy and adventure columns. Surely the most entertaining read around, even if I do say so myself. Secure your copy by sending 25p + a stamp to **Richard Pelley, 32 Abbey Road, Westbury-on-Trym, Bristol, BS9 3QW**. For more unbiased opinions, send your own fanzine or user group newsletter to me at *Express*. The best'll get a free plug. Everyone else will have to sip a fiver in.

Letters galore

Wow, a letter has finally dropped onto *NCE*'s WELCOME doormat addressed to SPEX. And, by heck, it's an interesting one at that.

Andrew Clapham from Nottingham has written primarily to demand a plug for *Outlet*, and electronic Spectrum-based monthly on Plus D, Opus and Microdrive. Sounds interesting. A full review when I get hold of a copy. He also makes some comments on Speccy loyalty, which I reckon are worth repeating.

"It may interest you to know that last Christmas I bought the latest bells and whistles 520 ST mega-machine. Although I was certainly impressed by the graphics and sound, most of the games seemed like 8-bit versions revamped. On the other hand, some of the utilities were so complicated that the process of using them on an occasional basis got in the way of actually using them. But the thing that decided it for me was the fact that within a short time the disk drive packed up and it was hardly overuse that caused it. Enough of that. I returned to my humble Spectrum and have had no serious problems. I am a firm believer in the 8-bit. After all, I still use a calculator that I have had ten or so years. It still does its job, and so does the Spectrum."

Couldn't agree more. There does seem to be a pressure on 8-bit owners to sell out and upgrade to the latest lump of expensive plastic. Why bother, when the machine you own serves its purpose and you're happy with it? As for your comments on the ST, well far be it from me to enter into any pointless computer bitchery, but I've got to say from my experiences with the thing that it sometimes tries so hard to be user-friendly it falls flat on its MIDI interface! Pretty pictures of filing cabinets might look nice, but isn't traditional, old-fashioned typing a lot easier?

Concerning SPEX, Andrew had this to say. "The Spectrum page in issue 1 rather game the impression that the humble Spectrum was only good for the under-twelves to play games on. Whereas in fact there are a goodly number of more mature Spectrum freaks...I trust you will make reference to the fact that the Spectrum can be used for other things than games playing..."

Well that's telling me! Bryan Morton expressed similar opinions in issue 5's letters and, as much as I hate to admit it, on reflection perhaps I have been a little too games-based up 'til now. The trouble is, there isn't a wealth of serious Spectrum software around, and what there is hasn't found its way to me yet. However, I will do my utmost to cover more serious software and hardware in the near future.

Anybody else got something interesting to say? Scribble it down and send it to me at **New Computer Express, 4 Queen St, Bath BA1 1EJ**. I look forward to hearing from you.

Hot tips

Here are some tips for *Afterburner*, sure to save taxpayers' money on all those F-16s you keep wrecking

- To avoid the missiles, fly as low as possible to draw their aim and – just when you're about to cop it – climb. It works every time (well, nearly).

SCORE
STAGE

- Performing a roll's really difficult. Here's one way that should work; fly to either the extreme right or left and sort of *waggle* the joystick twice in the same direction.
- Don't be too sparing with your missiles. If there are more than four enemies on the horizon, take them out. You should be able to dodge the rest's missiles as detailed above.
- If a plane or missile is on your tail, slow down to let it move in front and blast it.
- A general tip is to keep moving all over the shop in time-honoured *Space Harrier* tradition. Not only do you live longer, but onlookers will actually think you know what you're doing.

Robin Alway

SECTOR 64 SECTOR

Best of '88

Just to finish of 1988, here's a list of the good things that have happened on the 64 this year.

- Coolest music: *Savage* music – Maniacs of Noise. The music is amazing, and you won't believe some of the sounds.
- Coolest game: *Nebulus* – John Philips. A classic.
- Coolest pixels: *Firebird* – Bob Stevenson. Very cool arcade 16-bit graphics.

If you put just one of these three titles next to the same thing on a Spectrum or Amstrad it would knock the socks off it.

Computer art

We were very impressed by Rob Whitaker's (alias MANTRONIX) latest picture, *Ginger Fox*. Looking at Rob's picture you would have thought you were looking at a TV programme on pause. The method of shading that he has used has made the picture which was drawn in 160 x 200 resolution look almost hi-res. To do this he has used four colours which are all very close to each other. In this case he has used three greys and one black. Using these colours next to each other when drawing diagonal lines makes your eyes see a smoother line because the next colour in the shade is in the corners. The picture was copied off a black and white picture which, drawn correctly on the 64, loses nothing in quality. This picture can be found on the Net at "I+M3" under the name of "GINGER FOX".

Cheat mode

This week we have four great pokes, thanks to Robert Troughton. Just bung in the cassette and load. Once it has run, reset your machine and follow the guide.

Our first poke is for the poor conversion of *Street Fighter*. Hopefully it should make the game a little better.

POKE 210001,173
POKE 40897,96 (infinite lives)
SYS 35388 (restart game)

Here's a cheat for that great little Mastertronic game *Pulse Warrior*. Just load the cassette as normal, reset your machine, and...

POKE 5481,173
POKE 5512,173
SYS 2053 (restart game)

Our next cheat is for *Scorpion*. Load as normal and reset the machine.

POKE 31120,173 (unlimited time)
POKE 31824,173 (unlimited lives)
SYS 2304 (restart game)

And finally a poke for *Cheap Skate*. Load as normal and reset.

POKE 7616,173 (infinite lives)
POKE 6339,0 (infinite time)
SYS 4096 (restart game)

Licences at Christmas

These arcade conversions and licences should be out any time now:

Double Dragon ▪ Melbourne House ▪ £8.99
R-Type ▪ Electric Dreams ▪ £9.99
Afterburner ▪ Activision ▪ £9.99
Thunder Blade ▪ US Gold ▪ £9.99
Soldier of Light ▪ Ace ▪ £8.99
SDI ▪ Activision ▪ £9.99
Operation Wolf ▪ Ocean ▪ £9.99
Robocop ▪ Ocean ▪ £9.99
Rambo III ▪ Ocean ▪ £9.99

SDI
NOW THE ODDS ARE EVEN
ACTIVISION
SEGA

• SDI:An new old formula from Activision

Christmas teasers

Just a few questions to test your knowledge and provide a little seasonal entertainment...

1 How many bits to a byte?
2 How many bytes to a word?
3 How many words to a long?
4 How many bytes to a long?
5 How many bits to a long?
6 How many mhz is the 64?
7 What sort of keyboard is the 64's?
8 What game would you be playing if you were a pumpkin?
9 What kind of low level language does the 64 use?
10 What kind of base is the number AFE6?
11 What software house has been known for its comical characters?

Are the following true or false?

12 The 64 can do interlace
13 The 64 can take away all borders so sprites can access them.
14 The 64 has 255 colours.
15 The 64 has 16K memory.
16 The 64 cannot do 4-channel music.
17 Commodore named the 64 after the age of its inventor.
18 The CBM 128 is also a 64 - in a way.
19 The CBM 128's 64 mode can have 2 mhz
20 Commodore says its logo reminds them of a chicken head.

Well that's all, but don't look at the answers until you've finished. Try them on your friends.

Stocking fillers

Do you ever wonder what programmers get up to at Christmas? Well I could tell you what goes on but I won't. Instead, I got together a couple of coders to spill the beans.

Steve Snake programs the C64, Spectrum and Amiga. He converted the Atari ST version of *Impact* to the Commodore 64 for Audiogenic.

What do you want for Christmas?

Steve: I want a Ferrari Testarossa, and that's just a stocking-filler.

What do you want to see on the box this Christmas?

Steve: I want to see the Jarre concert at long last. I was there!

Who would you like to kiss under the mistletoe?

Steve: Erm, that's a hard one. I suppose it must be Kylie Minogue.

What would you like on your Christmas plate?

Steve: Money, and lots of it.

What would you rather do at Christmas than celebrate if you had the choice?

Steve: Get a job with loadsamoney, as long as it's not converting boring *Breakout* games.

Ash Routledge and Dave Saunders program the good old C64 and their list of software is *Pirates in Hyperspace* (and old budget game) and *Gaplus* (the new coin-op from Mastertronic).

What do you want for Christmas?

Dave: Copies of *Gaplus* from Mastertronic.

Ash: A £200,000 house.

What do you want to see on the box this year?

Dave: Not the *Wizard of Oz*.

Ash: The *Wizard of Oz*.

Who would you like to kiss under the mistletoe?

Dave: Kim Wilde. Yum yum yum...

Ash: My idol, Madonna.

What would you wish for if you got a wishbone in your turkey?

Dave: A holiday in Austria.

Ash: I wish I could get used to working normal 9 – 5 hours instead of late at night.

What would you rather do at Christmas than celebrate, if you had the choice?

Dave: Go to Lapland to see Santa Claus.

Ash: Be on holiday somewhere really hot.

As you can see, programmers have very bad taste!

DOUBLE DRAGON
MELBOURNE HOUSE

• Double Dragon: A big seller this Christmas

Listing time!

At last, it's Christmas – and there's nothing better than a good type-in, is there? Especially when this week's listing is in tune with the festive season. It may look big, but I promise it's worth it.

At Christmas time I'm sure you have your Christmas tree set up with its lights beaming away. If you haven't, they why not have eight little Christmas trees flying around your TV screen? Once all the data has been read into memory you don't need to read it again. Once it's done you can press RUN/STOP to see the trees still there. A simple SYS49152 will start them off again if you reset your machine, but only if you turn the sprites on by typing **POKE 53269,255**.

And those answers...

Now, before we finish, here are the answers to the Commodore 64 quiz.

1. Eight 2. Sixteen 3. Two 4. Four 5. Thirty two 6. One Megahertz 7. QWERTY 8. Couldron II 9. 6502/6510 10. Base sixteen 11. Gremlin Graphics 12. True 13. True 14. False 15. False 16. False 17. False 18. True 19. True 20. True

Christmas cards

Finally, we would both like to wish you a merry Christmas and a happy New Year.

Ian + Mic

Listing

```
0    B=4032
1    PRINT"[CLR HOME][WHITE]PLEASE WAIT"
10   RESTORE:FORL=0TO64:READA:POKEB+L,A:NEXTL
15   REM ********************************
16   REM * TREE SPRITE DATA             *
17   REM ********************************
20   DATA 0,48,0,0,16
30   DATA 0,0,84,0,0
40   DATA 100,0,1,109,0
50   DATA 1,86,0,13,214
60   DATA 64,6,85,64,22
70   DATA 117,208,149,85,148
80   DATA 128,48,128,0,48
90   DATA 0,0,48,0,0
100  DATA 48,0,2,170,0
110  DATA 0,168,0,0,168
120  DATA 0,0,0,0,0,0,0,0,0,0,0,0,0,0
130  B=49152:FORL=0TO183:READA:POKEB+L,A:NEXTL
131  REM ********************************
132  REM * MACHINE CODE ROUTINE         *
133  REM ********************************
140  DATA 120,169,192,141,21,3,169,18,141
150  DATA 20,03,169,27,141,17,208,88,96
160  DATA 169,56,141,18,208,32,44,192,169
170  DATA 1,141,25,208,169,127,141,13,220
180  DATA 169,129,141,26,208,76,49,234,160
190  DATA 0,162,32,189,0,194,141,0,208
200  DATA 189,0,193,141,1,208,162,64,189
210  DATA 0,194,141,2,208,189,0,193,141
220  DATA 3,208,162,96,189,0,194,141,4
230  DATA 208,189,0,193,141,5,208,162,128
240  DATA 189,0,194,141,6,208,189,0,193
250  DATA 141,7,208,162,160,189,0,194,141
260  DATA 8,208,189,0,193,141,9,208,162
270  DATA 192,189,0,194,141,10,208,189,0
280  DATA 193,141,11,208,162,224,189,0,194
290  DATA 141,12,208,189,0,193,141,13,208
300  DATA 162,255,189,0,194,141,14,208,189
310  DATA 0,193,141,15,208,238,47,192,238
320  DATA 61,192,238,75,192,238,89,192,238
330  DATA 103,192,238,117,192,238,131,192,239
340  DATA 145,192,96,0
350  POKE53280,0:POKE53281,0:
360  POKE53285,5:POKE53286,13
370  FORL=0TO7:POKE53287+L,2:POKE2040+L,63:NEXTL
380  POKE53269,255:POKE53276,255:B=49408:C=49664:
     P=3.14159265
390  FORA=0TO2*PSTEP2*P/256
400  X=170+50*SIN(A)
410  Y=150+50*COS(A)
411  POKEB+T,Y:POKEC+T,X:T=T+1
420  NEXTA
430  SYS49152
440  PRINT"[CLR HOME][9 CURSOR DOWNS]"
450  PRINTTAB(17)"MERRY"
451  PRINTTAB(15)"[DOWN]CHRISTMAS"
452  PRINTTAB(17)"[DOWN]FROM"
453  PRINTTAB(15)"[DOWN]SECTOR 64"
454  GOTO454
```

CPC centre

That was the year that was...

Christmas may be a time for giving (bah humbug), but it's also a time for looking back over the year that's gone, and looking ahead to the year to come. That's right, folks, it's time for yet another 'Crackers and Turkeys'/'1988 Awards'/'Review of the Year'-type article, in which your correspondent gets to give you the distilled results of a quick flick through a year's magazines and come up with half a dozen hopelessly wide-of-the-mark predictions for the next twelve months. Oh well, here goes, with an entirely prejudiced look at the year just gone:

● **January:** Incentive going strong with the first of its *Freescape* games, *Driller*. Your correspondent misses entire nights' worth of sleep trying to find the 17th and 18th sectors. Success – at last!

● **February:** Rumours begin to appear about a new 16-bit Amstrad. Is It The End For The CPC? (Instalment 38 in a 97 part paranoid series.)

● **March:** Gremlin boast about acquiring the licence to Disney's Mickey Mouse. (The reason I pass on this entirely useless information is to give you some idea of the time-scale involved. He arrived 50 years ago, the deal is signed in early '88, and the game appears... well, wait and find out!)

● **April:** The cheap imported 3" disk row develops. Are they reliable? Why are 3" disks so flippin' expensive anyhow? (The row continues: see below.)

● **May:** Headline of the Year is spotted in some mag called *Amstrad Action* (is that right?): 'No price rise for CPCs'. Panic on Wall St, the Tokyo Stock Exchange closes early and shares at Amstrad rise to a new high. A. Sugar refuses to comment, in more than four letters.

● **June:** The Multiface II+ appears from Romantic Robot. Not exactly world-shattering news in itself, but it does serve to highlight the snore-inducing piracy debate. Everyone – pirates and pirate-haters alike – knows what they think, and is determined to make sure everyone else does too.

● **July:** Incentive's second *Freescape* game, *Dark Side*, takes everyone by storm.

• PC200 – a turkey for Christmas?

Your correspondent resigns himself to another week's sleepless nights – with less success at the end of it than before.

● **August:** Printer price levy is imposed on all Japanese printers coming into the European community. Brother, having just set up a printer factory in North Wales, tries hard not to look sickeningly smug – and fails totally.

● **September:** The 'Amstrad Entertainment Centre' – a CPC with radio, TV aerial, alarm clock, toaster, sock rack and tie-holster – is revealed to an indifferent public. Wall St holds steady.

More interestingly, Mirrorsoft's tough new Imageworks label has the CPC firmly included in its plans, suggesting a welcome faith in the 8-bit games market. Are they sure they know what they're doing?

And Gremlin's *Mickey Mouse* (see March) makes its appearance. All that work, all that investment, all that nail-biting, behind the scenes finally pays off with a surprisingly good game, given the scenario.

● **October:** Certain CPC magazine celebrates its third anniversary with its highest ever readership figures. No doubt the other two CPC-specific titles are doing equally well?

● **November:** The PC200 – once feared as the CPC's successor – makes its ignominious appearance. 'Turkey' was the most generous comment.

Fleet St Editor, Mirrorsoft's stupendously successful multi-format DTP program, finally makes it to the CPC (two and a half years after its announcement!). It falls flat on its bug-ridden face.

● **December:** Incentive and *Freescape* (getting the drift of things by now?) are back, with *Total Eclipse*. Your correspondent sighs, and sells his bed altogether.

Oh yes, and two of the three CPC-specific magazines merge as 'the official one'. Seems sales weren't going that well after all. Oh dearie me, I'm heartbroken.

Who's been naughty or nice

Now Santa is packing his sleigh with presents and seeing who's been naughty and nice and all that stuff it's time to give him a few tips on what to get for those people that you just don't know what to buy for.

● Alan Sugar needs a check up from the neck up. Why would any sane person release a machine like the PC200?

● US Gold should receive some of Santa's little helpers because it can't complete *Heroes of the Lance* without assistance of some kind.

● Mirrorsoft also needs to book some sessions with a trick-cyclist if it plans to release any more programs like *Fleet Street Editor*.

● Incentive could do with an incentive to produce an original idea. Freescape is an super system, and it would be nice if it could do something different with it: but when you're doing as well as it is, why should it change? Asked to comment, Ian Andrew responded, "That's a good point".

● Players should have a snail racing set, to remind it how exciting *Thing* was to play.

● Finally the Oliver Twins definitely should get some name tags because I can never remember which one is which.

Coming soon to a machine near you...

There are lots of games to look forward to in the new year, and there will also inevitably be flops, but we're not at home to Mr Grumpy so let's stick to the good news shall we? Here's a few predictions for you to cut out and keep and brandish at me in a year's time...

● UBI Soft finishes *Iron Lord* in February. Sixteen bit owners all raved about *Defender of the Crown* (whatever happened to the CPC version, by the way?) and *Iron Lord* is in a similar vein. Domination is the name of the game, and there's nothing wrong with a bit of healthy domination between consenting adults (oh what a giveaway).

● The computer version of the age old classic board game *Risk* appears from Leisure Genius (you know, the company that did *Scrabble, Monopoly, Cluedo* and *Scruples*).

● One game that doesn't feature in my crystal ball is *Bard's Tale II*, so get on the phone this minute to those nice people Electronic Arts (0753 49442) and convince them that they should be doing it. (Don't tell them I gave you their number, though, or Leslie will never speak to me again.)

● US Gold brings out some fabulously innovative releases of superb quality arcade conversions; the PC200 starts selling; Codemasters brings out a game with the word 'simulator' somewhere in the title, and I come up with an original and funny joke. Well, perhaps not...

Tape to disk transfer

Had a call from Bruce Everiss – Codemasters public relations chap, don't you know – this morning. The man was in usual full flow, doing his best as ever to mount a "promote this week's product" offensive (and I actually do mean offensive), when all of a sudden and completely against the run of play what he was saying became of interest.

The body in question is *Four Soccer Simulators*, a huge compendium of footie variations. Not only is it Codemasters' first full price release, it's also the first thing the Coders have released on disk. And it could be its last...

Prices are the usual £9.99 tape and £14.99 disk. The problem, though, is that 3" disks are getting scarcer than an *NCE* freelancer's cheque in the UK. "There's a phenomenal shortage of the damn things", Bruce says: "You just can't get them for love nor money. We've had to import our own from Europe". How many Bruce? A tight-lipped Everiss refused to comment. More than 5000? Ashen-faced B.E. could neither confirm nor deny... He did say however it was "a bulk order". Given Codemasters' track record of selling near the hundreds of thousands in cassettes – if Gallup and Bruce's own figures are anything to go by (his may not be, of course) – it could mean bad news for the rest of us.

Amstrad disks have never been very popular with distributors. For a start there's a higher unit cost than other disks (translation: they're too expensive). And again, they can't store as much information as 5.25" or 3.5". Witness the US Gold decision not to release *Pool of Radiance* on the CPC, due to storage problems.

Now that the things are in short supply, the price is going to go up; which means smaller profit margins for duplicators; which are passed on to the software houses; who in turn cut down game development in order to conserve cash; and as usual it's us, the"end users" as we're rather oddly called, who suffer and pay. This stagnation could be gradual or dramatically sudden, depending on the real availability of the disks.

There is, however, an alternative and altogether more optimistic (and therefore less likely?) interpretation. CPC disks have sold beyond the importers' expectations, and larger orders will be placed to ensure that it doesn't happen again. Software houses will write on CPC disks for ever more.

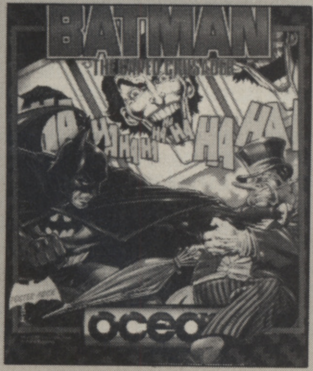
Given that the importer is Amstrad, a company with something of a record of getting import schedules wrong (and making all sorts of excuses), we could see a whole new era of Amstrad home computing. And I don't mean Comet flogging a few tacky PCs that look like overdone BBCs.

Steve Carey

Na-na, na-na... Batman!

Holy disk software, Batman! Ocean has released a new caped crusader episode which stars Batman, Robin and their arch enemies the Joker and Penguin! Bof! Batman – the Caped Crusader is the second game to star the dynamic duo! The first one was Batman – and that was almost three years ago! Bam! The latest incarnation – cough – is played in comic strip style boxes whereas – wheeze – the original... 'scuse me... was a, bog-standard 3D, isometric game.

Oh stuff this for a game of soldiers I'm off down the pub...



Dark forebodings

It's hardly front-page news that Amstrad is continuing to chip away the less profitable parts of the CPC operation. But what people (including, perhaps, Amstrad itself) fail to realise is that gaps are opening up in parts of the market. If you could have supplied a certain someone with a bulk order, at a price cheaper than, say, £2.30 per disk, he'd have done business with you.

What is needed is some entrepeneur to come forward, to keep up the infrastrucutre of the Amstrad CPC. If such people appear – and they'll be doing this to make money, not out of altruism – then the machine has a good few years in it yet. What makes a machine viable is the amount of support shown to it. Be it by large companies or small, every little bit helps.

Another fr'instance of the same thing is the shortage, as far as I can make out, of a customised desk or 'workstation' (dreadful term, but you know what I mean). Comstax, for one, has made a killing knocking out a lovely little £30 bolt-it-yourself job for the PCW, but unless I'm very much mistaken (ahem) there's nothing similar for the CPC. Wouldn't it make a grown business person weep to see that opportunity drift by for four years now with nothing done about it? Unless, of course, you count Amstrad's own botched effort, literally supporting the 'Home Entertainment Centre' (known round our part of the world as the 'what the HEC is it?')

And the areas available for exploitation aren't just in supplying raw materials: getting hold of technical information is going to get more and more difficult, now that the firmware specification has to all intents and purposes been scratched. There's room too for a large base user club: not the boring old tame 'official' one, but one where the staff can actually help, where they really know what they're talking about.

Will it happen? Will fortunes be made and lost? Only time will tell.

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PCW PATCH

Marginal improvement

Everyone knows you can tell someone's personality by their handwriting – for example, the left margin too close to the edge of the paper denotes an introverted, intense person – the sort who believes in graphology too much.

You can do the same by the look of the letters they produce on their PCWs. For example, a left margin too close to the edge of the paper means a caring, environment-conscious type; they're too mindful of waste paper to print out the letter again correctly aligned.

Getting the paper lined up right has always been a problem, hence the appearance of paper guides which fit onto your printer and make sure your letters print out properly first time. Margin Maker has been the best known of these and now is out in a new form, called *MaxaFit*, which will fit onto to any printer, including of course both PCW types (dot matrix and daisywheel). *MaxaFit* costs £25.75 from Margin Maker, PO Box 121 Gresham Rd, Staines Middlesex TW18 2AJ including VAT and postage.

Sweet FA

Striker Luther Blissett said the most profound thing about the modern game of soccer that has ever been said. "Football's football," he posited. "If it wasn't, it wouldn't be the game that it is". Makes you think.

Now, for soccer thinkers and strategists everywhere, something new. Not a game simulator, no, not some mere digitised *Subbuteo* game – this is a strategy program. *World of Soccer* is now out from Coda, whose last release for the PCW, called *Head Coach*, was an almost obsessively detailed American Football management-coach simulation, a must for NFL fans.

The new soccer strategy game puts you in the Robson hot seat; you guide your national squad through a four-year campaign to the World Cup. Soccer addicts will lose a lot of sleep playing this one into the night, which should enhance the Robson likeness. *World of Soccer* costs £15.95 from Coda on 01-789 9551.

Ample arts

Add-ons for desktop publishers usually come in the shape of clip-art – i.e. blocky, jagged and rather unpleasant to look at. However, *Get Set*, for *Stop Press* owners, is one add-on with a difference – not only are the additional pieces of art well designed, smooth and cover a wide variety of useful applications, they were designed by the very chap behind *Stop Press*. *Get Set* is from Tecnation for £24.99 (three discs) from **23, The Nursery, High St, Sutton Courtenay, Abingdon, Oxon OX14 4UA**.

There is even Christmassy clip art with Santa and his reindeers enabling you to make up your own cards. Please don't.

Tip of the iceberg

Mini Office owners can insert their word processor documents directly into *LocoScript* documents by using *Loco*'s 'insert text' facility ([f1] Loco 2, [f7] Loco 1).

Mini Office
PROFESSIONAL
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Database

• Mini Office: the link with LocoScript

Tabs, italics, bolds, layouts and so on are lost but it's a neat way of getting the best of both worlds, viz. *MOP*'s word counter and speed of operation (particularly block moves) plus *LocoScript*'s ability to print out justified proportionally spaced text in minutes instead of hours like *Mini Office*, and to put in wacky characters for obscure languages nobody speaks like Estonian and Greenlandish and mathematics. Best done by putting things you don't use like $ into the *MOP* original and using [EXCH] in *LocoScript* to change them all into those things *Mini Office* lacks (exotic and obscure characters like 12).

You can similarly insert data from your *Mini Office* database directly into a *Loco* file so long as it was saved as a .MRG mail merge file. It's a good idea to put the last field in every record as $0 (numeric field, lead character $) and when you've inserted the document in *Loco* as above, [EXCH] all⁻[RETURN]-$0[RETURN] for [ALT][TAB] to put in page ends as separators. An instant *LocoMail* or *LocoFile* data file!

Case joints

Further to the huge postbag generated by the great disk case debate: if you too are worried that your new disks, caseless and thinly jacketed, are prone to damage from stray microwave radiation, satellite TV signals and the depletion of the ozone layer, you can stock up on new cases from a variety of suppliers in addition to the one mentioned recently.

As well as Redcar Computing (0642 486643, 39p each) you can get them from Kador (0443 740281) and ComSoft (0890 2854, £3.50 for ten). And your brain teaser for this week is... rearrange these words into a well-known phrase or saying: "disk cases are really necessary not". And thank you for your suggestion, Mr B of Surrey, but if I did that I would probably corrupt the data on the disk.

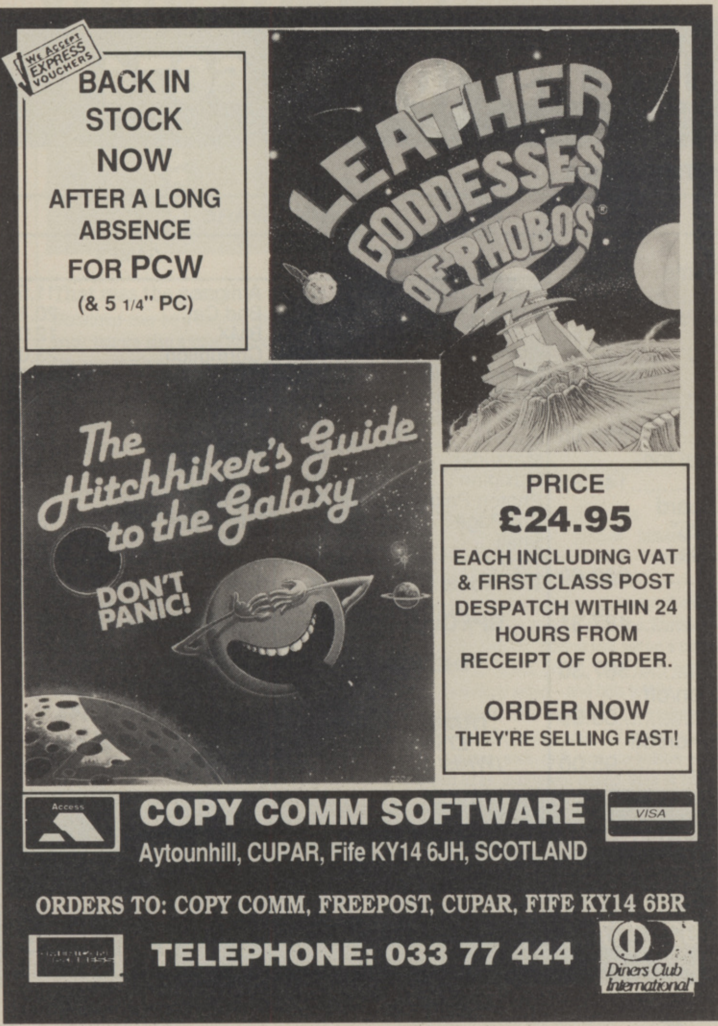
Best wishes for a happy and peaceful Christmas holiday to all *Express* readers, except those flicking through this in WH Smith's trying to read all the column before the train leaves without buying the magazine. Come on, you tightfisted lot, it's only 48p.

Rob Ainsley (Editor 8000 Plus)

Does your memory, erm, er...?

As 1988 draws to a close, what can we expect in 1989? Reliable sources tell me that 'someone' is working on a 512k RAM pack add-on for the PCW. In the shape of a standard interface, it would merely plug in to the back of the PCW and supply you instantly with the extra space in M – 1024k on a 9512 or 8512! Now, if only I could remember who told me about it...

Also on the cards, imminent, likely and probable is a Thesaurus and Spell Checker which will work, operate, function and perform with **LocoScript, Protext and Mini Office documents.** ***It's scheduled for release in February (so you can expect it in August sometime) and the price should be about £20. Watch this space.***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QL corner

QL for the 1990s

A question often asked is "How good can a computer that was first designed five years ago possibly be?" Well, there is no denying that the QL is now about four years old, and there is no denying that microcartridges are really painful (and should be banned!). It is also pointless denying that while the QL keyboard is quite usable, it could be better...

So is the QL on the decline? The answer is an almost definite "No". Surveying the market today, no other machine – except ones costing a couple of thousand pounds – offers the powerful combination of multitasking and extensibility of language that the QL does.

We all know that the QL doesn't support multi-channel sound (the ABC Elecktronik QSOUND add-on board will provide this, though), but how many serious users want to be rocked by the sound of mega-blasts? I don't think Sinclair aimed the QL at a particular market or a particular type of user. He designed a fast computer which used 32-bit 68000 technology (far in advance of the Z80 and 6502 CPUs that dominated the computers of the day) and left it to the machine to attract its own following.

PC Emulation Part 7

Here is the promised next instalment of the PC emulation saga. Emulation speed is the most important factor of all, and it is in this area that Digital Precision appears to have made giant strides! While no software-based emulation can ever yield the sort of speeds required for interactive games, products like PC Ditto for the ST and the PC emulator for the Amiga have achieved wide acclaim already.

Digital Precision states that thanks to a breakthrough in software architecture, 80 x 86 instructions (the bits of machine-code which the PC understands) are not interpreted one at a time but are semi-compiled (or do I mean pseudo-compiled?) collectively at run-time, suppressing unnecessary checking and flag operation.

This apparently makes The Solution – the name of the QL emulation package – significantly faster than rival packages for other 68000 micros. Turning the QL into a PC with CGA graphics could change the whole QL scene. And Digital hints that full multitasking will be available, including QDOS+MSDOS and MSDOS+MSDOS. If so, your QL might go up in value as hordes of PC owners who want multitasking buy up every one in sight!

Still on the PC emulation front, it is understood that besides running on the QL, The Solution (to your problems) will run on the Atari QL Emulator too. This is quite mind-blowing – an emulator on an emulator! Digital Precision, never one to hide its light under a bushel, has cheerfully pointed out that running its PC emulator (with Lightning) on the ST QL emulator, its code runs quicker than the Atari's own PC emulator...

Digital Precision can be contacted on 01 527 5493.

The QL never received much by way of support from Sinclair – it is rumoured that SRL employees privately expressed their annoyance that Sir Clive hadn't just produced a bigger, faster Spectrum! After a few TV ads showing a sprightly orange-haired gentleman jumping – sorry, quantum leaping – over some computers in Regents Park, Sinclair moved on to funny little three-wheelers that would have provided great entertainment for this country's truck drivers on wet Thursday motorway afternoons...

Basic gets the analysis

More news on new products! PDQL (tel: 021 200 2313) have also released a new version of *XREF*, the *SuperBASIC* program analyser par excellence. This one has a trace which some how works out the dynamic hierarchy of calls – sounds like a bit of white magic to me!

This is an invaluable aid to program development – whether you intend to supercharge, liberate, turbocharge or even just plain interpret your program. At £15, PDQL is not selling it, it is giving it away!

Miraculous price hike

Some not so good news from Miracle. Due to a worldwide shortage of DRAMs, it has pumped the price of *Trumpcard* up from £175 to £299! That's a hefty 72 per cent hike. C'mon Miracle, your products are good, but that price is not. If you don't reduce it, somebody else will trump your card. Is there anyone listening out there?

QLs don't have ears

Back to the question about how relevant the QL is (or isn't) today. The QL's specification was (by and large) right, and QDOS was way ahead of its time. So far ahead that the journalists of the day, who had also been expecting a Spectrum Mk II rather than a serious machine not particularly oriented towards games, raised an almost unanimous howl of protest.

They all said the same things (and you know that if more than one person says something, it is bound to be false: wonder how many people said that?!) and they said it very loudly. In a short time it didn't matter whether what they were saying was true or not – the damage was done. That's life. Fortunately, QLs don't have ears, and oblivious to sundry journalistic yelpings, they continued to work, winning over many of their users for life!

Pick of the bunch

1988 has been a bumper year for programs, with new products from PDQL, Sector and Digital. The best news is that the program quality is ever improving. Digital's *Professional Publisher* (£89.95, just released, for example. The stated target was to produce a package superior to the best programs on the Apple Macintosh, a £2,500+ machine) and PDQL's *Basic* to *C* converter should be top of the list. But if you've suffered the vagaries of *Media Manager* (DP candidly – or shamelessly – admit this is their least wonderful program) then the *Special Edition* would appear to be a wise upgrade.

PDQL certainly seems convinced that *The Editor* is the best thing since sliced bread, as they have released an interesting utility called *Text Tidy* (£10 from 021 200 2313) which converts *Quill* documents into *Editor* format (i.e. plain ASCII). Do you remember the controversy Digital Precision (which produces *Editor)* stirred up when it advised people to "Chuck *Quill* out"?

Coming soon

This columnist – never one to be boring – will soon be comparing *Quanta*, the veteran QL user group, and *SUB* (all things to all men) for value for money. Watch out!

Eric Simmonds

QUANTA

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MSXTRA

MSX Tech show

I visited the MSX Tech computer show earlier this month, and saw some of the latest hardware and software now available.

Nearly all the computers on display were MSX 2s. The MSX 1 does seem dated in comparison. Digitised pictures on the MSX 1s were quite remarkable, but I was told on good authority that the MSX 2+ is far superior in this respect, and can produce pictures superior even to the Amiga's.

Software seemed to disappear from the retailers' stands at an alarming rate; shows are always a games player's dream. Software that impressed me? Well, *Kings Valley 2* from Konami looked good, with colourful graphics and great sound. It has, I'm told, hundreds of screens to beat – a game to keep the kids quiet over the Christmas break!

There were quite a few Japanese games on sale, all on ROM and most of them 128K. It was impossible to try more than a couple. *Super Laydock* on MSX 1, 2 mega ROM game, looks good, as indeed do *Garyvo King* (MSX 2) and *Tritorn* (MSX 1).

I'm sure Jeff Whiting, the show's organiser, was well pleased with the attendance. It was almost impossible to get near the computers to try out the software, a sure sign that the MSX still has its supporters.

Comm on down!

For all those MSXers who are interested in Comms, a Mr Vernon Wyland has sent me details of a new system for MSX users to log on to. Although Mr Wyland has not yet given the system a name, MSX *Viewdata* (for want of a better title), should be up and running as you read this.

It will be similar to Prestel or Datacom. The systems manager can produce text in different colours, and can also produce diagrams and graphics. To log on to the system you need a modem capable of V23 facilities. The protocols are 1200/75 baud rate, 8 bits, 1 stop bit, no parity. The system operates between 18.00 hrs and 08.00 hrs. The number to ring is (051) 531 6464. Entry to the system is coded, but guest users can use the code 2222 2222 to access the host.

Strength to strength

It's nearly the end of another year, and the MSX still hangs on in there. Despite the MSX being written off three years ago, the MSX user has proved himself to be loyal to the format.

It looks like we will still be around this time next year, too. At least five major European software houses are still producing MSX software (plus dozens of Japanese ones), and I'm sure the Japanese hardware manufacturers won't let the format die.

MSX 2+ in Europe!

If you read last week's New Computer Express, you may remember I said there were no plans at present to release the MSX 2+ in Europe. Since I made that statement news has come through that Sony plans to officially release the MSX 2+ in Europe at the Hanover Computer Show in March.

I do know lthat one or two of these computers are already being used in Europe and the UK; I just hope that at least one of the companies involved in producing these machines will give us support by releasing these computers in the UK.

Somehow I have a feeling that our loyalty to the MSX will be rewarded.

I already have a list of software titles due for release next year, so read on to have your appetite whetted...

Firstly, we have *Superman Man of Steel*, from Tynesoft. Next, there are a whole host of titles from Grandslam – *Espionage*, *Pac Land*, *Dandy*, *Thunderbirds* and *Running Man*. We also have Konami's *Nemesis 3* due out around March and, of course, dozens of titles from Topo Soft and Dinamic. It's going to be a good year for the games players amongst you.

Christmas crackers

I know that a lot of younger readers (and some ofl the not so young) will be wondering what to spendl their Christmas money on, and I know software is a number one priority. I have therefore compiled this list of essential software purchases, titles that should be in everyone's collection. All have been tried by yours truly.

Firstly, some Konami titles. *F1 Sprint* is a cracking motor racing game which includes Stock Car, Rally and Formula One, Two, Three and 5000 events. *Salamander* is one of the best shoot-em-ups on the market. *Kings Valley 2* is a brilliant platform and ladders game (I do hate that definition) where you can design your own screens. The final recommendation from Konami is the MSX 2 game *Treasures of Usas* (another platforms and ladders job), which features great use of graphics, sound and colour.

Elite, from Firebird, needs no introduction. If you haven't bought this game yet – why not? It's a must in everyone's collection. *Ocean Conqueror* on the Rack It label at £2.99 is a great submarine simulator, with good use made of wire frame graphics. *Ace of Aces* on US Gold's Kixx label is now brilliant value at just £2.99, as is *Way of the Tiger*, also £2.99 from Kixx.

For the adventurers amongst you, *Silicon Dreams* from Rainbird and *Ingrid's Back* from Level Nine can both be recommended, although they're text-only on the MSX.

Finally, for those with a little more cash to spend (£30-ish), own an MSX 1 and would like to who off your artistic talents, how about the *Neos Mouse*, and *Cheese 2* software on disk or ROM for £12.99 and £18.99 respectively?

Christmas cheer

May I wish all the readers of *Express*, particularly the loyal MSX users, a very Merry Christmas and a prosperous New Year.

Keith Neal

Infinite Montys

Here is a short listing to give you infinite lives on Mutant Monty.

```
10      CLEAR 100,&H87FF
20      BLOAD "CAS:"
30      POKE #27872,0
40      DEFUSR=&H9000
50      A=USR(0)
```

Konami tips

By kind permission of the Konami Software Club I can give you a couple of tips for Konami's ROM games.

For The Maze of Galious, start the game, press pause and type in ZEUS. When both characters die you will be able to continue by pressing F5. For F1 spirit type in MITAIYOENDDEMO when asked to input password. You will see the ending demo.

King codes

Already I have received some codes for Kings Valley 2. For screen 8 type IBACDOG, screen 9 AJBBHAIK, 10 EKIBOIO, 11 BECMGOKO, 12 BADAGGKG. These should help those who received this game for Christmas.

BEEB BOX

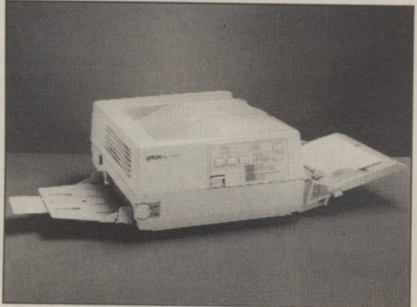
Stop restarting

Switching computers on and off to reset them is not recommended; it shortens their life. But often restarting after some programs is almost impossible any other way. However, if you can get to the BASIC prompt, typing *FX200,3 will clear all the memory, and a plain BREAK should suffice.

Bah, humbug!

These days, it seems that the Yuletide season is with us for an incredibly long time. The twelve days of Christmas are long gone, to be replaced by the 120 days of Christmas!

At least that is what the high street megastores would like to think. This means that by the time the fateful day arrives most people are fed up to the gills with the whole empty charade, with the ensuing arguments over the half eaten turkey and mince pies "I told you not to buy that ****** thing for him, it's just a waste of space" and so on, to the tune of a thousand decaying batteries.



• Laser printers: The way forward?

Crystal balls

Turning to the subject of printer technology I believe strongly that by this time next year the Non-impact printer (Laser, Inkjet, LED etc) will be dominant in all fields apart from the very bottom end. This is simply because they beat dot-matrix printers in almost every respect, speed, resolution, flexibility, reliability. The only area in which Impact printers score is in print costs, and for many people that is overridden by the time factor.

So how will that affect the BBC market?

Suddenly people will see that they can put together an effective DTP system for minimal cost using their BBC to control it. However, present DTP software is tied to Dot-matrix printers, so expect to see a rash of cheap and cheerful printer drivers, together with hastily released upgrades to present products.

The other thing I see happening is the ever increasing dominance of the WIMP interface in new program releases. These days Mode 7 is out, and Mode 4 is in, and not before time too.

Scanning the tea-leaves for an indication of Acorn's intent for the forthcoming year suggests that while they will continue to support the Master 128 series in education, home users will be left to their own devices, something that anyone who has been to a BBC computer show lately will already be aware of.

Looking ahead is always difficult, so I am not going to make any more predictions, save to say that I hope to be still here this time next year reporting on the BEEB scene.

Panic? not me...

A quick mention of a program called DON'T PANIC, which is billed as a "Business Experience Simulation".

It looks like fun, and I might even learn a few things from it. Full review of this when space permits.

Andrew Brown

Year's best bits

At this point you are probably thinking "Oh no, he's going to list every damn piece of software and hardware for the BBC in an effort to pad out his column this week".

Well, yes and no. It's kind of a Christmas tradition for journalists to give some kind of review, or list at this time of year, and I'm all for tradition.

However, I'm not into long and boring lists. So I am going to give a purely personal whistle stop tour of what I would like to see in the black nylon stocking (! – Ed) at the end of my bed, together with what I think is going to happen in the forthcoming year.

- *Firstly, if you own a Master series computer the best value for money must be the 512k 80186 Co-processor for only £95 from the amazing Watford Electronics.*

  Giving DOS capability to your Master at a fantastic price it is really quite surprising how much software will run on it. Forget GEM, however, it really needs a hard disk to work properly.

- *That brings me nicely onto the Watford Winchester drives, very desirable pieces of kit indeed at ú350 and ú450 for 10 and 20 Megabyte versions respectively.*

- *If this bit sounds like an ad for Watford I do not apologise, as for many people WE are the people for BBC bits, bobs and spares.*

  Their distinctive green pages have long been the mainstay of many a BEEB magazine. However of late it has been edging into the PC-compatible field, and even one or two BBC mags have carried their adverts for Aries computers (shame on you A&B Computing!)

- *If your budget is more limited however I cannot think of anything more useful than a copy of Snatch from 4mation, or its competitor Screenprint from ESM. Both these memory resident screen dumpers are great fun to use and reasonably priced.*

  Just make sure that you get a new printer ribbon before Christmas.

- *In the educational software market, possibly the most enjoyable program has been Designer Castles from Data Design, a truly original idea, for creating buildings out of paper. Once again though a new printer ribbon is firmly recommended.*

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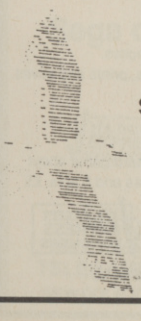

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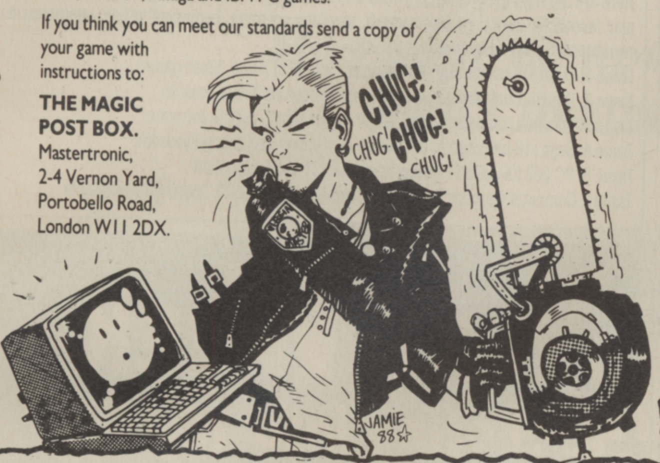
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PUBLIC RELATIONS - liaising with media both within and outside the software industry, demonstrating games, writing press releases
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Here are the highlights of the previous issues – but remember they also contain all your regular favourites: news, games reviews, machine columns, beginners' guide, controversies, tech tips, letters, PSsst, vouchers etc etc.

Issue 1: Future of computing, PC graphics, revival of Basic, Xmas games
Issue 2: Which computer?, the perfect wordprocessor, Konix console
Issue 3: Portable computing, Alan Sugar profile part I, yuppie software
Issue 4: Sega's16-bit console, best value PC, games that change your life
Issue 5: PC 200 fiasco, DTP guide, computer art, Unix explained
Issue 6:Computer Careers, Software cracking exposed, MGT Spectrum-compatible

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Rocketing into 1989

We get the New Year off to the best possible start with a great, action-packed issue.

The WORST things about your computer (and what to do about them)

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A last look at the computer scene

How well do you know yourself? Your use of computers and knowlege of the computer world reveal the innermost workings of your mind. Honest. So here's the definitive test put together by psychologists unknown the world over. Answer all questions promptly (and without cheating by looking at the numbers at the end). Then tally up your points and read the analysis. Hours of merry fun can be had by filling in the results as though you were someone else! Get to it!

KNOW YOUR PC-NALITY!

1. Do you help your friends, relatives, colleagues etc with their computing problems?
a) Actually, I spend almost as much time solving other people's computer problems as I do on my own computing stuff.
b) I would do if I had any friends, relatives, colleagues etc. But my computer does rather preclude most human contact.
c) No, because I can't. They have to help me.
d) When I can, which isn't often.
e) If they've got a problem, then they've got a problem. Tough. (If they want to pay, well that's another matter.)
f) What, like how to destroy the deadly humanoid Cybex on planet Xdong? I'll only tell if someone can help me get passed the awesome pack of sea stoats in level 15. I've been on that for weeks, and so far I've...

2. How often do you use your computer?
a) Whenever necessary.
b) Whenever possible. It's well crucial and I've nearly reached the status of Super Master of...
c) I occasionally have to sleep, eat and read the odd magazine. Other than that, there's little time for anything other than my lovely little machine.
d) Not as much as I could or should. To be honest, I don't really know what I can use it for.
e) As little as possible. They're so reductive: the world becomes little more than a small screen. Computers are just another means of privatising entertainment, so that we're all locked away in our little worlds. And they do nothing for business except give the impression of being indispensable.

3. What would you do if you were given a new Sega/Konix/Atari games console?
a) Douse it in petrol and set light to it immediately. Consoles will be the death of computers. I mean, there's no keyboard! Just how are you expected to program a joypad or whatever the hell they're called?
b) Leap up and down and then do a curious hopping dance, mouthing unrepeatable expressions of joy.
c) I'd say thank you very much.
d) I'd expect there to be a catch. You haven't, after all, said anything about any free software.
e) I'd be very pleased, because I've heard that they are quite stunning graphically.

4. What is EISA? And does it pose an effective threat to IBM?
a) It's some load of business twaddle. I'm beginning to get bored with this test: pass me my *Afterburner*.
b) It's taken a long time to come together since I first proposed it. At last the leading computer firms have united against IBM in their realisation of the need to go beyond PCs whilst retaining as much compatibility as possible. As I outlined at the Chicago Symposium, IBM is now faced with...
c) I'm afraid I've no idea. IBM is quite big, so I can't really imagine it's a threat, whatever it is.
d) An excuse for yet more business lunches and interminable meetings. IBM's worried by no one.
e) Only time will tell. It's of little interest to Joe Punter in any case.

5. How significant is the D-Ram shortage?
a) It's a terrible current affliction for the computing industry, which is holding back availability of many products and which is thus adversely affecting the financial well-being of many manufacturers.
b) It's a piece of reverse hype, designed to explain the non-arrival of certain computers and to offset the general expectation of ever-lowering prices.
c) Do you know that if you type CHEAT while the title screen is showing, you can gain infinite lives on the ST version of *Livingstone*?
d) Why should it worry me, chum? Frankly, I've got a computer with the requisite number of chips and have no expectation of needing another machine in the foreseeable future.
e) It's unfortunate, but these things do happen.
f) It's something I'm attempting to solve via my own custom-built chip plant.

6. How do you regard software piracy?
a) It's absolutely dreadful. It'll ruin the software industry just as it ruined the record market.
b) As one of my favourite challenges. To be honest, cracking the code is usually more exciting than using the software. As one of my friends on a bulletin board so rightly said the other day, you can...
c) As the best way to get hold of the latest mega releases.
d) It's a minor irritant at the private level and just plain theft when companies do it commercially.
e) Who gives a damn? If software houses will price their stuff at ridiculous levels, then they must expect products to be pirated. The Lord God Sugar alone knows how it's done, mind you. I leave that to the techno-Johnnies who revel in that sort of tedious thing.
f) It's just a means to keep obviously disturbed computer freaks off the streets. Set them a challenge and they feel honour bound to go for it. It's just a big con.

7. What do you think about the new 586-based machines?
a) I'm enormously impressed and can't wait to get my hands on one.
b) The new what?! You're making it up: I've never heard of them.
c) I honestly couldn't give a penguin's waddle. It's just one more thing for the technobores to witter on about.
d) Oh non-mega! I've just broken my joystick. I'll be back before you can say *Ninja BMX MegaMaster Five-a-side Simulator*.
e) I'm working on a comms package designed for 586s.

8. How do you regard the average computer manual?
a) With intense suspicion. They're always shot through with nonsenses.
b) As a vital means of understanding a product.
c) As a vital means for other people to understand a product. I usually just dive straight in and work out any little difficulties for myself. That's half the fun, isn't it?
d) Manuals? What, like the *Guide To Satarongia* (with the special supplement on Trolls' bodily functions)? They're wicked!
e) Often quite useful, sometimes exasperatingly difficult to comprehend/find your way around etc.
f) With utter fascination. I read them in bed and keep copies easily to hand should one of my very occasional friends pop by.

THE SCORES

	Your answer	Your score
1. a) 1 b) -50 c) 4 d) 8 e) 30 f) 18	☐	☐
2. a) 6 b) 14 c) -7 d) 3 e) 22	☐	☐
3. a) -60 b) 17 (and if you're not called Tony Takoushi, you should've been) c) 3 d) 21 e) 8	☐	☐
4. a) 13 b) -48 c) 2 d) 33 e) 8	☐	☐
5. a) 5 b) 91 c) 17 d) 57 e) 6 f) -4,000	☐	☐
6. a) 3 b) -6.527 c) 11 d) 9 e) 31 f) 111	☐	☐
7. a) 2 b) 8 c) 25 d) 19 e) 814 (take a hint, matey)	☐	☐
8. a) 22 b) 4 c) -18 d) 13 e) 8 f) minus infinity	☐	☐
TOTAL		☐

ANALYSIS

Minus infinity to 8: You're an unreconstructed techie. Others (such as anyone in any other category) might venture the opinion that you're a bit of a bore. That's not fair. You're an awful lot of a bore.

16 to 40: Welcome to the world of computing, oh naive user! You probably haven't had your machine for long and are a little uncertain about what you should be doing with it. Read Peter Worlock's excellent Beginners series in *Express*, and try not to be too gullible when it comes to believing what others say.

48 to 72: You're a seasoned computer user who knows what he/she wants from a computer and gets on and does it. Overall, you're honest, legal, decent and truthful. Ever considered becoming an advert?

80 to 160: Bit of a games fan, are we? Watch your single-mindedeness: be they ever so wonderful, computer games really aren't everything. And be careful not to confuse fantasy with reality. Why, as I was only saying the other day to the Great King Mithros in the Land of Pydelia...

161 and upwards: You really are a cynic. You don't care much for computers and probably don't much care for anyone but yourself. There's more to life than working for Amstrad, you know.

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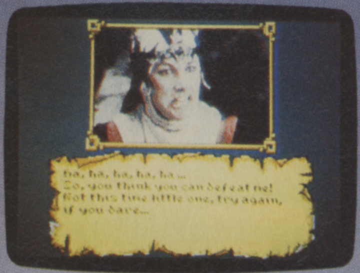
ha, ha, ha, ha, ha...
So, you think you can defeat me!
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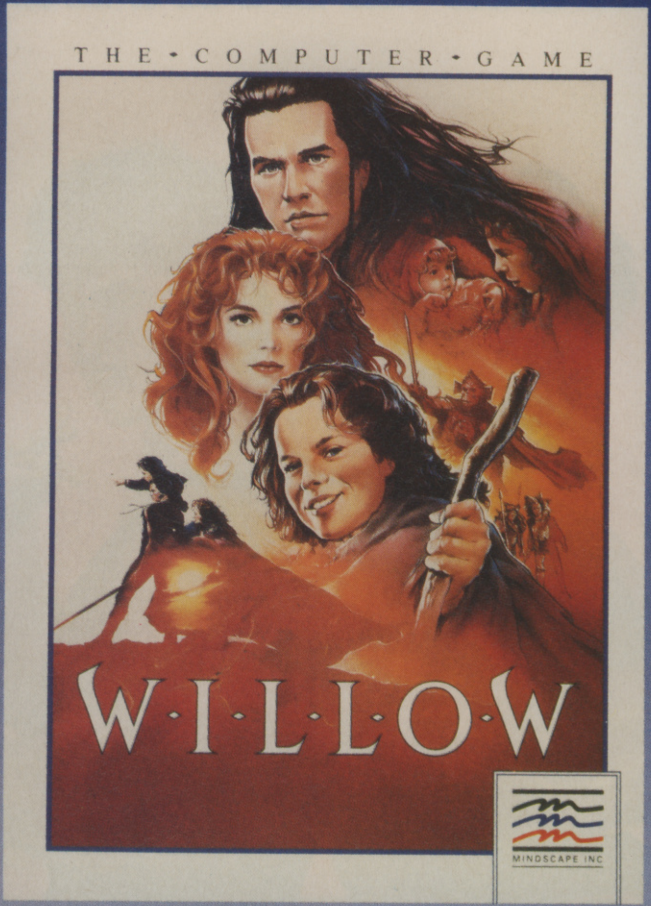
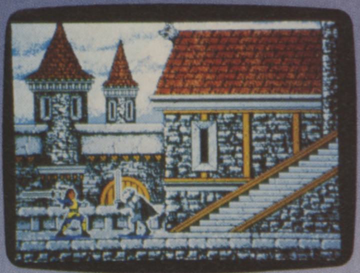
if you dare...





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